Policy, Research, and External Affairs

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Education and Employment

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Public Expenditure Reviews for Education

The Bank's Experience

Antoine Schwartz
and
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Bank experience with — and ways to improve — the analysis of education issues in public expenditure reviews (PERs).

Policy, Research, and External Affairs

WORKING PAPERS

Education and Employment

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This paper — a product of the Education and Employment Division, Population and Human Resources Department — is part of a larger effort in PRE to understand the education sector in the broader context of Bank operations, particularly adjustment programs, which form the background for public expenditure reviews (PERs) in two-thirds of the countries reviewed. It is the first step in a research agenda that includes analysis of how adjustment-related operations affect the education sector, how the education sector should be treated in PERs in the context of adjustment, and how cost and financing issues should be treated in the context of the macroeconomy. Copies are available free from the World Bank, 1818 H Street NW, Washington DC 20433. Please contact Cynthia Cristobal, room S6-035, extension 33640 (81 pages with figures and tables).

The Bank's increased focus on policy-based lending lies behind the Bank's shift from traditional public investment reviews (PIRs, to identify sector or investment priorities) and toward public expenditure reviews (PERs), which include recurrent expenditures. The shift to PERs has increased attention to the cost and financing of education, which is overwhelmingly financed from the public sector's recurrent budget.

According to Schwartz and Stevenson:

- Cost and financing analysis (and format) in PERs should be more standardized so conclusions needn't be based on ad hoc international comparisons, and so the conclusions are more credible. Reports should focus more on the sustainability of proposed, as well as achieved, reforms, and on the political and institutional (as well as economic) impediments to sustainability. Few reports acknowledge that more efficient educational processes usually require investments in quality improvements, the added costs for which initially outweigh the resulting savings. And it should be made clear whether savings from efficiency measures are to remain within the subsector or be reallocated elsewhere.

- PERs should include all sources of financing — public and private, local and central government — in the assessment of the adequacy of sector funding.

- PERs should address the imbalance between (1) recurrent and capital spending and (2) personnel and nonpersonnel spending.

- PERs should follow up sectoral diagnosis with concrete policy options, focusing not only on intrasectoral but also on intersectoral reallocation of resources. Many PERs — particularly for resource-rich countries that spend a lot on education — fail to provide concrete options, perhaps feeling less need than resource-poor countries to improve the efficiency and equity of resource use.

- PERs are no substitute for country and economic sector work. If data are inadequate, more sector work is needed for PERs to link macroeconomic and sectoral issues. Single-sector or possibly social sector PERs are more appropriate for in-depth analysis of cost and financing issues.

- Extensive detail is no substitute for focused analysis of education issues and priorities in relation to the country's overall development program.

- PERs should be attentive to the different time frames needed to attain macroeconomic and educational goals; the often substantial education funds outside the control of the Ministry of Education; the imbalance between, and low ratio of, capital to recurrent education spending; the low ratio of nonwage to wage expenditures in the sector's recurrent budget; and the large, capital-intensive foreign financing component of sector funding in many (especially low-income) countries, often fragmented among donors and projects.

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Andrew Noss (consultant) provided extensive research and data analysis. Reviewers Nicholas Burnett (AF2PH), Martha de Melo (CECPE), Michael Mertaugh (EM1PH), Julian Schweitzer (EMTPH), Christopher Shaw (AF1PH), Jee-Peng Tan (AS1VP), Adriaan Verspoor (PHREE), and Manuel Zymelman (AFTED) made helpful comments cn an earlier draft.

EXECUTIVE SUMMARY

A. Introduction

i. Since the early 1980s, the Bank has been gradually shifting away from traditional public investment reviews (PIRs), designed to identify sector investment priorities within the macro framework, to comprehensive public expenditure reviews (PERs) that include recurrent expenditures. The Bank's increasing focus on policy-based lending, particularly in low-income countries, has contributed to the growing reliance on comprehensive public expenditure reviews. Since education is largely financed from public sources, and overwhelmingly from the recurrent budget, the shift from PIR to PER naturally has increased attention to education cost and financing issues.

ii. Recent reviews have covered PERs in general and the treatment of the main economic sectors. Education issues in PERs, however, have not yet been evaluated. Specifically, this review has the following objectives:

a) To assess the extent to which the increased attention to education in PERs contributes to a more integrated treatment of education sector issues within the overall economic environment, particularly in adjusting countries.

b) To compare the government's sector objectives with national expenditure priorities and policy reforms and, where they are inconsistent, to suggest improvements.

c) To review the diversity of methodological approach, data treatment, and sector coverage among education PERs, identifying best practices according to country-specific circumstances.

iii. The analysis relies on a structured review of 36 reports (see annex II) which were selected from a larger sample of PER and PIR reports produced in the 1985-90 period. Countries are classified according to a three-dimensional typology: the ratio of government revenues to GNP, education spending as a share of total government spending, and the primary enrollment rate. This typology, explained in annex III, provides a rough diagnostic framework for comparative analysis of the policy content of education PERs.

B. The Education Sector in the Macroeconomic Context

iv. PERs are an excellent way of bringing together country economic and sector work (CESW) and linking macro and sector performance issues. But few PERs succeed in convincingly integrating the macro and sector perspectives. Many reports seem to include education in the expenditure analysis as a defensive strategy--to avoid being criticized for the sin of omission. No clear rationale is applied across reports to justify the inclusion of education resources, or human resources in general, in the multisector reviews.

v. In many instances, the only link between analysis of the education sector and the macro environment is the public sector budget constraint. Inadequate attention is paid to links and trade-offs between macroeconomic and sector priorities. In particular, few reports evaluate how proposed changes in development strategies affect educational requirements.

vi. A particularly critical link between the macro environment and the education sector is wage and incomes policy. Adjustments in teachers' salaries must be evaluated with regard to the fiscal situation, and changes in the civil service wage structure also must be evaluated at the sector level. Few reports even attempt to make this link. Education sector work rarely includes detailed information on teachers' wages.

vii. Reports have become more attentive to questions of sustainability in recent years, but insufficient attention is still paid to conflicts between budgetary constraints in the short and medium term and long-term education sector objectives. Focused on expenditure reduction, the reports exhibit little concern for the sustainability of proposed, rather than already achieved, reforms. Also overlooked are the political and institutional, rather than strictly economic, impediments to sustainability.

C. Sector Costs and Financing

viii. The analysis of the sector financing situation, and of the costs of the services provided, forms the core of education PERs. A major finding of this report is the enormous diversity in coverage, quality, and presentation of these issues among PERs. Although the new reports have a more standard format and coverage than do the old PERs, further progress in this direction is necessary. Greater standardization of cost and financing analysis is particularly important because many operationally relevant conclusions rely on ad hoc international comparisons. The credibility of such conclusions needs to be enhanced through more appropriate and more widely applicable norms and standards, or commonly accepted analytical procedures.

ix. Assessments of the adequacy of government spending on education are based on international comparisons or country trends, and often on both approaches combined. There is great diversity in the evaluation of governments' financial commitment to the sector and its various subsectors, with even greater variation in reports' coverage of important nongovernment sources of financing.

x. The treatment of internal efficiency issues also varies greatly in coverage and depth. Almost all the reports analyze internal efficiency issues, but few integrate their findings with an overall assessment of the government's financial commitment to the sector. Similarly, international comparisons of government spending on education ignore crosscountry differences in efficiency.

xi. Almost all the reports refer to budgetary and management inefficiencies that impair the cost-effectiveness of education spending. Areas of concern that should be included are the imbalance between a) recurrent and capital spending, and b) personnel and nonpersonnel expenditures.

D. Sector Financing Strategies

xii. The financing strategies that emerge from the PERs are based on an explicit, though sometimes equivocal, sector diagnosis. Spending recommendations are not always consistent with the overall economic assessment. Many PERs--particularly in countries that spend a lot on education--fail to follow up the sector diagnosis with concrete policy options. Reports focus on intrasectoral rather than intersectoral resource reallocation. The assumption--usually without clear justification--is that intersectoral reform is less feasible than intrasectoral reform.

xiii. Just as public expenditure reviews for resource-rich countries tend to avoid making specific sectoral financing recommendations, so those for resource-poor countries tend to emphasize the need for intrasectoral reallocation and more efficient resource use. The logic of this difference is clear: the more severe the resource constraint, the greater the need to maximize efficiency and to find other sources of financing. But the implicit corollary--that efficiency and equity of resource use are less serious concerns in countries with more resources--is questionable.

xiv. Few reports acknowledge that increased efficiency of educational processes usually requires prior investment in quality improvements, the incremental costs of which initially outweigh the resulting savings. Furthermore, it is often unclear from the recommended efficiency measures whether realized savings are to remain within the subsector or to be reallocated to another subsector. Consequently, the ultimate effect of such measures on the intrasectoral distribution of the education budget remains undetermined, even though the equity of this distribution is a stated area of concern.

xv. Crosscountry analysis of sector financing diagnoses and strategies confirms the need for a country typology linking sector financing and output criteria. The typology adopted for this review, though still crude, is useful in identifying exceptions and borderline cases that deserve closer scrutiny. In particular:

a) Sector financing issues and strategies are relatively obvious in countries where the level of public spending on education and the sector output are both high or both low. Issues and strategies are more complex when there is an imbalance between the two criteria (for example, a high level of government funding and low sector output). In these cases, the interrelated issues of quality, efficiency, and equity predominate.

b) In assessing the resource situation in the sector, *public resource mobilization* (the relative size of the budget) should be distinguished from *public resource allocation* to education. When education sector funding is constrained primarily by the size of the public budget (relative to GDP), the credibility of sector financing recommendations would be enhanced by a more integrated treatment within the macroeconomic framework.

E. Methodology

xvi. Approaches to education cost and financing issues vary greatly, as does sector coverage, even when country circumstances are similar. The sector specialist must bring experience and judgment to bear, but there is still too much room for subjective conclusions and recommendations. These compromise the credibility of policy recommendations.

xvii. A big problem for the analyst is not knowing what part of total education financing is represented by the public budget allocated to the relevant ministry. For cost-effective and equitable financing, a multi-source sector budget is required that includes allocations from ministries other than the Ministry of Education as well as from local and nongovernment sources. Such a comprehensive budget also provides a basis for more meaningful crosscountry comparisons.

xviii. A particularly acute problem in the education sector is the imbalance between capital and recurrent spending. PERs in recent years have usually included in sector expenditure analysis both types of spending.

xix. The success or failure of public expenditure recommendations often rests upon the Bank's understanding of the mechanics and politics of the budget process--the relationship of the national accounts to ministerial budgets, the relationship of the expenditure plan and budget to actual spending, and questions of intra- and intersectoral expenditure controls. Several PERs analyze budgeting issues thoroughly and in detail, but rarely discuss their effect on the education sector.

F. Conclusions and Recommendations

xx. Public expenditure reviews are an excellent vehicle for analyzing important sector issues in the context of the overall economic and fiscal situation. PERs should give as accurate a picture as possible of how funds to the sector are allocated and disbursed. Providing this picture entails an evaluation of the expenditure data and the expenditure process. In particular:

a) If the budget process and the relationship of the budget to actual spending are not transparent, then a budget process review may be a prerequisite for an expenditure review.

b) The PER cannot be substituted for CESW. If the necessary data are not available, ex ante sector work is a prerequisite for any PER that attempts to make and evaluate macro and sector links.

c) For in-depth analysis of sector cost and financing issues, single-sector PERs, or possibly social sector PERs, are more appropriate than multisector reviews.

xxi. Extensive detail is not a substitute for a well-focused analytic discussion of the principal sector issues, priorities, and policies, and their relationship--economic, political, and institutional--to the country's development program. Foremost, there should be a clear

rationale for the inclusion of education in the report and an explanation of the relationship of the sector to the overall theme or agenda of the PER.

xxii. The education sector (like other social sectors) has specific characteristics that affect the relationship between sector and macro expenditures and that can skew the impact of "sector-neutral" policies. PERs should pay explicit attention to these concerns, which include:

a) The different time frames for the attainment of macroeconomic and education sector goals.

b) The often substantial part of education sector spending (governmental and nongovernmental) that is outside the purview and control of the Ministry of Education.

c) The low ratio of capital to recurrent spending in the sector and the common imbalance between them.

d) The low ratio of nonwage to wage expenditures within the sector's recurrent budget.

e) The large and capital-intensive foreign financing component of sector funding in many low-income countries, which is often fragmented among many donors and projects.

xxiii. The treatment of the education sector in PERs must be analyzed in the broader context of Bank operations, in particular in the context of adjustment programs, which form the background for the PERs in two-thirds of the countries reviewed. This report is the first step in a broader research agenda that includes:

a) An analysis of the effects of adjustment-related operations on the education sector.

b) A discussion of the treatment of the education sector in PERs in the context of the economic austerity and fiscal retrenchment that often form the background for sector policy reforms.

c) The development of guidelines for an improved analysis of sector-specific cost and financing issues in the macroeconomic expenditure context.

I. INTRODUCTION

A. Background

1.01 Since the early 1980s, the Bank has been shifting from traditional public investment reviews (PIRs), designed to identify sector investment priorities within a coherent macro framework, to comprehensive public expenditure reviews (PERs) that include recurrent expenditures. The traditional PIR was often related to a national economic plan. The policy dimension of such a review was essentially limited to assessing the financial viability of the overall investment program and, at the sector level, to identifying "white elephants." The role of education, if treated at all, was relatively minor.

1.02 The shift from PIR to PER coincided with the financial crisis facing the developing world. Many Bank borrowers increased their focus on recurrent budgets, as PIRs and sector work uncovered sectoral evidence that operation and maintenance costs of public assets were underfunded. More and more, the notion of recurrent spending as "unproductive" consumption lost ground to the realization that a substantial part of the recurrent budget is a complement to, or substitute for, capital spending. The assessment of the effect of planned investments on public recurrent budgets has thus become a standard requirement in Bank work.

1.03 The Bank's increasing focus on policy-based lending, particularly in low-income countries, has contributed to the growing reliance on comprehensive PERs, which have become an instrument for the design and monitoring of public finance reforms and stabilization programs. Adequate focus on the interdependence of capital and recurrent expenditures is required for effective forward budgeting and cost recovery, both of which are strategic elements in the sustainable reduction of budget deficits.

1.04 Since education is largely financed from public sources, and overwhelmingly from the recurrent budget, the shift from PIR to PER naturally has increased attention to education cost and financing issues. These issues have also been addressed in a growing number of self-standing education PERs (sector cost and financing studies). In the Africa region, for example, there were four education sector cost and financing studies and one PER containing a substantial section on education in the years 1980 to 1984. Over the 1985-89 period, however, there were 10 education cost and financing studies and 32 PERs with significant education sections.[1/]

1.05 Education is one of the most labor-intensive public service sectors, by far the largest employer within the civil service (excluding the military), and it is a heavy burden on the recurrent budget. The sector investment program is small, but its implementation generates comparatively large incremental recurrent financing needs. In addition, the sector

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[1/]AFTED (1989), "Impact of the World Bank's Recent Policy Paper on Education in Sub-Saharan Africa on Its Sector Studies and Lending Operations," p. 19, Table 8.

is under constant expansionary pressure both from demographic trends and, among the poorest countries, from low initial levels of educational coverage.

1.06 In view of these characteristics, education is particularly vulnerable to the effects of economic adjustment and public resource constraints.[2/] Increasingly, therefore, the desire to shelter the poor from the adverse social effects of adjustment has become an explicit rationale for including the social sectors in PERs.

B. Scope and Objectives

1.07 Recent Bank reviews have covered PERs in general and the treatment of the main economic sectors.[3/] Education sector issues in PERs, however, have not yet been evaluated. Specifically, this review has the following objectives:

a) To assess the extent to which the increased attention to education in PERs contributes to a more integrated treatment of education sector issues within the overall economic environment, particularly in adjusting countries.

b) To compare the government's sector objectives, national expenditure priorities, and policy reforms and, where they are inconsistent, to suggest improvements.

c) To review the diversity in methodological approach, data treatment, and sector coverage among education PERs, identifying best practices according to country-specific circumstances.

[2/] A study of countries undertaking structural adjustment in the period 1979 to 1983 found that 68 percent effected reductions in education spending. In 22 percent of the cases, the education reduction was less in percentage terms than the aggregate reduction; however, in another 46 percent of the cases, education was among the most vulnerable sectors. A separate review of six low-income and lower-middle-income countries that underwent structural adjustment in the 1980s found that the decline in public expenditure on education as a percentage of GNP between 1980 and 1985 was 0.8 percent--almost twice the reduction experienced by low- and lower-middle-income countries in general. The outcome in the absence of managed adjustment, however, is unclear. Marlaine E. Lockheed and Adriaan M. Verspoor, Improving Primary Education in Developing Countries: A Review of Policy Options, PHR (1990), p. 24 (draft).

[3/] Tariq Husain, "Public Expenditure Reviews: West African Experience 1982-86," World Bank, December 19, 1986; Tariq Husain, "The Future Role of Public Expenditure Reviews in the Bank," (no date); Johannes Linn, "Lessons from the East Asia and Pacific Region: Experience with Public Expenditure and Investment Reviews," June 1986; Martha de Melo, "Public Investment/Expenditure Reviews: The Bank's Experience," Country Economics Department, June 1988 (draft); and Mohsen A. Fardi, "Generic Approaches to Expenditure Analysis in Sectoral Public Expenditure/Investment Reviews: The Bank's Best Practices," SPRPA, January 1989, (draft).

1.08 The standard medium-term focus of the PER may put the education sector, much more than the economic sectors, at a disadvantage when it comes to maintaining quantitative and qualitative standards of service in the face of global resource constraints. Indeed, the burden of economic adjustment and government retrenchment falls disproportionately on education and other social sectors.[4/] Since this review is limited to the evidence provided in PERs, the issue will only be touched upon tangentially. More important, this review emphasizes the need to strengthen the integration of sector policy issues and priorities within the macroeconomic framework.

1.09 After a brief review of the justification and operational context of PERs, section II discusses the relationship between global and sector issues. In particular, it assesses how the economic situation affects education, and how well education PERs reflect the main macroeconomic constraints and concerns. Section III reviews the treatment of sector cost and financing. The review culminates in a comparative analysis of sector financing strategies emerging from PERs (section IV), and an assessment of quality and methodology issues (section V). Conclusions and recommendations are included in section VI.

C. Coverage

1.10 This study is from a detailed review of selected PER and PIR reports produced in the five-year period 1985-90. Following a broad initial review, it was concluded that pre-1985 reports are of limited relevance to the present PER format, which reflects greater standardization, as well as increased breadth and depth of coverage. Many PERs refer to other Bank studies covering sector cost and financing issues. For comparative purposes, an additional number of these self-standing education PERs were selected to complement the formal, multisector PER reports. All together 52 reports covering 36 countries were reviewed (21 in Sub-Saharan Africa; 2 in Asia; 5 in Europe, the Middle East, and Northern Africa; and 8 in Latin America and the Caribbean).

1.11 For the purpose of analysis across countries, the sample was reduced to one report per country--that is, to 36 reports (see annex II). This involved selecting one report for each of the 12 countries with more than one report in the total sample. The selection was made according to the reports' coverage of essential issues. In cases of equal ratings, preference was given to the most recent documents and to formal PERs. The focus was thus maintained on PERs, but without excluding other important education expenditure studies. The sample includes 21 standard (multisector) PERs, 3 PIRs, and 12 other CESW reports, of which 6 are self-standing education PERs. All together, there are 28 multisector reports and 8 reports covering only the education sector.

[4/] See, for example, Andrea Cornia, Richard Jolly, and Frances Stewart, eds., Adjustment with a Human Face. UNICEF. Oxford: Clarendon Press, 1987.

D. Methodology

1.12 This report relies on a structured review of the selected reports based on the protocol documented in annex I, complemented by interviews with Bank staff. In addition, a country typology was developed as a methodological framework for a comparative analysis of policy issues related to education costs and financing.

Table I.1: Sector Resource Mobilization and Primary Enrollment Rate (Country Typology)

	HIGH SRM	LOW SRM
HIGH PE	Tunisia **Lesotho** Botswana **Kenya** Zimbabwe Honduras	Philippines Colombia Peru Turkey Cameroon **Malawi** **Mozambique** **Nigeria** **Zambia** **Madagascar** **Tanzania** Bolivia **Haiti**
LOW PE	Jordan **Burkina Faso** **Ghana** **Mali** **Rwanda** Morocco **CAR** Côte d'Ivoire Senegal Costa Rica	**Niger** Guatemala **Guinea** **Pakistan** **Sierra Leone** **Bangladesh** Mexico

Note: Low-income countries are in bold.

1.13 This typology is documented in annex III. In a first stage, it classifies countries according to two basic criteria: *sector resource mobilization* (SRM) from public sources

relative to GNP; and the *primary enrollment rate* (PE) as a measure of sector output.[5/] The sample of 36 countries is subdivided with respect to both criteria into "high" and "low" country groupings, depending on whether the value of the respective criteria for each country lies above or below the median value of the sample--2.8 percent for SRM, and 80.3 percent for PE (see annex III, table 1). "High" and "low" are thus relative terms that do not indicate value judgments. The outcome is shown in Table I.1.

1.14 The second stage defines sector resource mobilization as the product of overall *public resource mobilization* (PRM), as reflected by the ratio of government revenues to GNP, and *sector resource allocation* (SRA)--that is, the part of government expenditures absorbed in the education sector. Sector resource mobilization thus depends on two distinct policy-related parameters: resource mobilization and resource allocation. In the PER context, the former parameter concerns the macroeconomist, or public finance expert, while the latter is a focus of interaction between the macroeconomist and the sector specialist. As in the first stage, countries were subdivided into "high" and "low" groupings with respect to both PRM and SRA according to their median value in the sample--17.3 percent and 16.1 percent respectively (see annex III, tables 1 and 2).[6/]

1.15 The end result is a three-dimensional typology (see annex III, table 3), which enables one to identify for each country: (i) whether the sector output is high or low relative to the sector resource situation, and (ii) whether the SRM reflects predominantly the effect of public resource mobilization, public resource allocation to the sector, or both combined. The typology thus provides a rough diagnostic framework for comparative analysis of the policy content of education PERs, particularly on sector financing strategies. Section III of annex III provides a detailed overview of policy diagnoses and strategic implications of the various sector financing situations arising from the interplay of public resource mobilization, sector resource allocation, and sector output.

[5/]This output criterion was selected because of the importance among sector objectives of achieving universal primary education and the large share of education financing absorbed by this subsector (around 40 percent on average in developing countries).

[6/]The actual position of countries on the PRM/SRA and SRM/PE scales is illustrated in annex III, figures 1 and 2.

II. EDUCATION IN A MACROECONOMIC CONTEXT

A. Linking PERs and Bank-supported Adjustment Operations

2.01 Public expenditure reviews are time- and resource-intensive undertakings that often form the core of Bank-country dialogue about public sector priorities. They are also essential in determining priority areas for Bank support, both project-based and policy-based.

2.02 In two-thirds of the 36 countries, a Bank-supported adjustment program was under way at the time of the report or within three years before or after it. The link to the preparation, implementation, or evaluation of adjustment operations is explicit in only one-third of the documents (and in only one single-sector report, the 1986 Turkey Education and Training Sector Survey). In another one-third, the adjustment program is merely the background for the analysis of general or specific public spending priorities, often in the form of a government expenditure or investment plan. Only one of these is a single-sector report, the 1985 Nigeria Education Sector Expenditure Review. The final third (five multisector and six single-sector reports) are general analyses of public expenditures that are not explicitly linked to a reform program or expenditure plan.

2.03 Thus, the most common reason for a PER, although not always stated as such, is to function as an input into or evaluation of a Bank-supported adjustment program. The explicit or implicit justification for a PER is found in the Bank's priorities for its work in the country more often than in the country's fiscal management priorities. Indeed, some Bank and outside experts have contended that the justification for a public expenditure plan is derived from Bank, rather than country, priorities. These critics often find little coherence between the public expenditure planning and management exercise and the government budget, or between the budget and actual spending. The public expenditure review is intended precisely to bring clarity and predictability to the process, but in many countries it remains an artificial, externally imposed device not viewed as useful by the implementing government. For many multisector PERs, much of the sector-level data are not collected in the field but are derived by Bank staff or consultants working on the government's budget or plan. Because of the constraints of the process, the sector analyses are often macro driven.[1/]

B. Including Education in PERs

2.04 No clear rationale is applied across reports to justify the inclusion of education or human resources in the multisector reviews. Of the 28 multisector PERs, 16 include all principal economic and social sectors, including education. Half of these justify the inclusion of education by stating that social services are, or should be, a government priority. In addition, five reports focus on the broader rubric of human resources. Of

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[1/]World Bank Seminar on Public Expenditure Planning and Management, April 25, 1990, SEMA Group Management Consultants.

these, the Jordan report focuses on the distributional effect of economic development and the Bolivia report on the social sectors. The Botswana, Central African Republic, and Cameroon reports treat education briefly under the category of human resources.[2/]

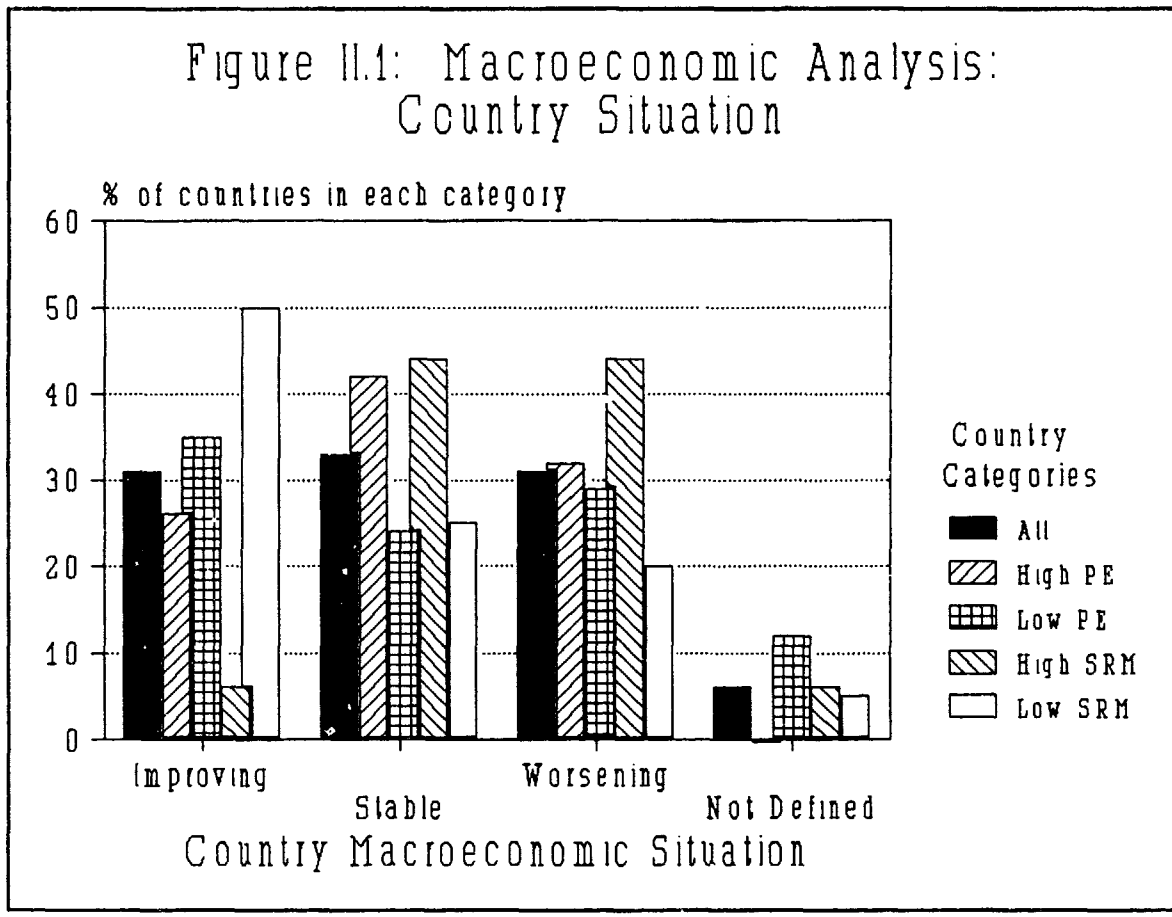
2.05 The Bolivia PER with Special Emphasis on the Social Sectors (1989) presents a clear rationale for its choice of sectors. It reviews the link between public expenditures and economic performance and analyzes the effects of the government adjustment program on public spending. A primary goal of the program was to diminish the role of the public sector while increasing spending and improving the efficiency and equity of delivery programs in the social sectors. Consequently, health, education, and social security are reviewed in separate, but brief, chapters. At the other extreme, the Madagascar report states that education is one of the largest government budget categories, but the sector is not included in the report because a major government review is still under way. Although the institutional difficulties of waiting for the government's report are understandable, it is hard to have faith in the conclusions of a PER when information about one of the major government expenditure posts is not available.

2.06 Among the seven multisector reports that explain the choice of sectors within the budgetary framework, four include education because it is one of the three or four largest items in the government budget. Three reports emphasize social services as essential to the attainment of long-term development goals. In the remaining reports, the lack of a stated rationale implies that education is such an important sector that its inclusion need not be explained. The opposite circumstance exists in the eight single-sector reports, which focus on the education budget with only minor attention to the overall public budget. If a large and essential sector is excluded from the review, or if education is included only cursorily because it is a high-visibility sector, the validity of the PER's recommendations may be compromised. The justification for an expenditure review of one or several sectors should clearly explain the inclusion or exclusion of sectors according to the overall emphasis of the PER.

C. The Macroeconomic Context for PERs

2.07 One report (Mali) completely ignores the country's economic situation, and another (Niger) provides only the briefest summary of the macroeconomic environment, comparing its declining per capita GDP unfavorably with other countries in Francophone Africa. Characteristically, both of these reports are single-sector PERs. The remaining 34 reports provide some review of the macroeconomic situation. Figure II.1 summarizes the macroeconomic situation according to the country typology as worsening (11 cases), stable (12), or improving (11). The macroeconomic assessment appears to be inversely related to the public resources situation (that is, optimistic in low SRM countries, and pessimistic in high SRM countries). The time frame for the macroeconomic forecast is short- to medium-term (usually three to five years) in 14 of the reviews, long-term (looking toward the late 1990s) in 14, and unspecified in the remaining 8 countries.

[2/]See annex V for a complete matrix of sectors included in each report.



2.08 The need to limit public spending is the primary macroeconomic constraint in most countries included in the review. Restrictions on the public budget can be the result of 1) decreasing public revenues or 2) increasing expenditures that have led to unsustainable deficits or the adoption of austerity programs. In nearly one-quarter of the macroeconomic analyses, the country was described as facing a severe economic crisis caused by declining terms of trade or other exogenous shocks such as drought, floods, external disruptions to transportation routes, and war.

2.09 Approximately half of the reports either do not define a macro strategy (single-sector reports) or do not discuss any links between macro and sector strategies. In Turkey and Senegal, for example, an important macro priority is to encourage private sector involvement in the economy, yet the private sector is not mentioned as an important provider and consumer of trained manpower.

2.10 Another common economy-wide priority is export-oriented growth (15 countries). This objective is only supported by specific education policies (promoting skills training as a priority) in four reports. In the other countries, the macro objective is not reflected in specific goals for the education sector. The inverse is also true: nine reports cite expansion

of, or quality improvements in, vocational training as a priority without clear reference to the macro analysis.

2.11 Although all but two reports pay some attention to the macroeconomic context for the sector analysis, the treatment is uneven. There is a particular gap in the analysis of economy-wide policy priorities that need to be reflected in sector policies and trade-offs.

D. Macroeconomic and Education Sector Links

2.12 In analyzing the relationship between the macroeconomic situation and sector concerns, a number of questions should be addressed. These include:

a) What is the overall resource situation?

b) What is the public sector's resource situation?

c) How is the size of the resource allocation to education affected by priorities in other sectors, or by political, institutional, or other external forces?

d) What noneducation priorities or exogenous factors affect education sector priorities?

e) Are there changing economic circumstances, for example as a result of adjustment, that could alter the external efficiency of the education system?

f) Are there external threats to the sustainability of education sector objectives?

2.13 These questions are relevant to most sectors. Four specific concerns of the social sectors are noteworthy. One is the time frame for the review. The obvious conflict between short- to medium-term development goals and the long-term benefits of education spending is often overlooked in multisector PERs, which tend to focus on macroeconomic growth within the medium term (three to five years). But in the long term the quality and quantity of educational output may suffer declines that are not apparent during short-term fiscal retrenchment.

2.14 A second problem is the largely recurrent nature of education spending. Because education is labor intensive, wages make up a large share of the recurrent budget, and because education is overwhelmingly a public sector endeavor in most countries, economy-wide public expenditure adjustments may have a greater than proportional effect on the education sector (see box III.1). Third, education spending is often divided among several ministries or levels of government. Capital spending is often allocated to a noneducation ministry (the Ministry of Public Works, for example), so imbalances between capital and recurrent spending are difficult to rectify within a narrow, sector perspective. A fourth problem in many low-income countries is the high proportion of foreign financing in the social sector investment budget. Foreign-financed inputs are often ad hoc, unsystematic, and driven by donor, not country, priorities.

2.15 The ability to confidently analyze general and sector-specific issues would require massive flows of information and analysis of feedback mechanisms in both directions--from the economy to the education sector and vice versa. In an ideal world, all of the necessary data would be available, and the intra- and intersectoral relationships would be transparent. In reality, however, time and resources are always constrained, and information is always imperfect. Nevertheless, the following links are of particular importance to understanding how the education sector relates to government expenditure priorities.

2.16 External forces driving education policies. Three-quarters of the reports make explicit reference to external forces that influence education policy. The percentage is slightly higher among high PE countries, perhaps because a large education sector involves a large share of the population, and is more dependent upon other social, economic, and political forces. The most frequently mentioned external factors include:

a) Demographic pressure. A high rate of population growth is the most common external factor (in one-half of the countries studied) influencing education policy. In some countries, a high demand for education coupled with a high population growth rate force increased allocations for educational expansion at all levels. In other countries, increased enrollment rates and expansion of the school system (in Tunisia, for example, universal education is to be expanded from six to nine years) are an intermediate means of reducing the number of new entrants into the labor force because sufficient employment and other opportunities for young people are lacking.

b) Demand for education. Only a few reports (Guinea, Pakistan) explicitly make the connection between the demand for education and external efficiency. These reports argue that changes in the demand for education (in general or for specific skills) are a rational response to changing perceptions about the job market for graduates with various skills.

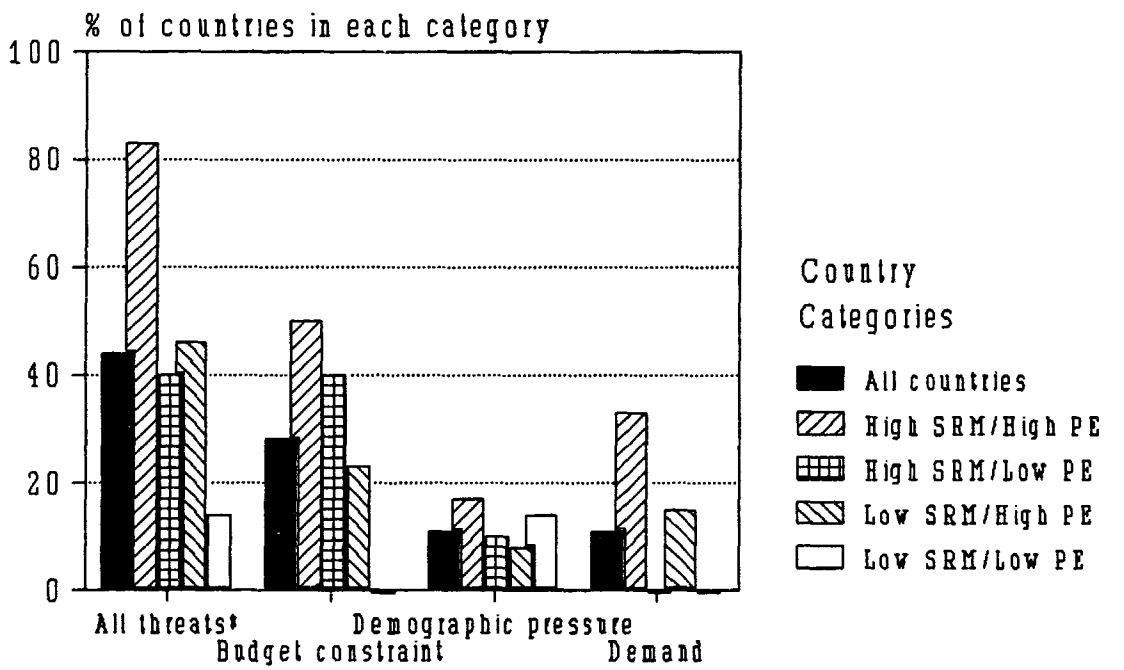
c) Labor market needs. Economic development is impeded in Turkey and Lesotho because of shortages of skilled labor. Several reports acknowledge that out-migration of skilled labor greatly affects the education sector, which must take into account domestic and foreign employment opportunities. The Haiti report points out that increased spending on vocational and higher education would not be efficient because Haitian off-shore industry employs primarily low-skilled workers. In most reports, however, the macro level concern about out-migration and a lack of skilled labor, particularly in the light of skills-based outward-oriented growth, is not translated into sector reform toward that end.

d) Donor preferences. Several African reports pointedly refer to the importance of donor preferences in determining education policy. In Malawi, donor preferences are reflected in an economy-wide budget that is too investment intensive, and in the choice of specific investment priorities. The study finds that foreign donors are more willing to shift funding from investment to recurrent

needs if the macroeconomic situation is stabilized. In other words, macroeconomic adjustment is essential before donors are willing to finance activities without a tangible output. In the Central African Republic, no global program of investment priorities exists, and almost all investment is externally financed. Reports recommend closer coordination and better prioritization of donor projects, but they offer little structure for so doing.

2.17 External threats to the sustainability of education priorities. As illustrated in figure II.2, concerns for the sustainability of sector achievements seem to be motivated by the fear of slipping on performance standards that have already been met, either in terms of *primary enrollments* or *sector resource mobilization*. Where both these indicators are low, only one report voices concerns about sustainability. When one indicator is low and the other is high, 43 percent of the reports discuss sustainability, and all but one reports do this when both indicators are high. Ten reports express concern that current subsidy levels are unsustainably high given public budget constraints.

Figure II.2: Threats to Sustainability of Education Sector Priorities



*The category 'All threats' includes the budget constraint, demographic pressure, and the demand for education, but is not necessarily the sum of the other three due to double counting.

2.18 Except for the budget constraint, there is little discussion of external threats to proposed policies ex ante. Other threats addressed in only a few cases are population growth and the demand for education. In many countries, the social demand for higher education exceeds the requirements of the labor market and jeopardizes both the intrasectoral balance of resource allocation and the ability to provide quality education. A similar problem is the conflict between the demands of the labor market for vocationally skilled workers and the low social demand for vocational training relative to academic training in many countries.

2.19 The Turkey Education and Training Sector Survey is one of the few reports that addresses the implications for education of a changing economy. It clearly states that the outward-oriented economic development program and attendant need for skilled labor has major implications for human resources policies. Most reports, however, do not specifically discuss the effect of noneducation policies on education.

E. Sector Issues and Priorities

2.20 Expansion, access, and equity. The reports cover numerous sector issues at various educational levels. For the purpose of this review, the issues are divided into the following broad categories for primary and postprimary education: access, quality, equity, and internal and external efficiency. Many developing countries have greatly expanded their educational system, particularly primary education, but this does not necessarily reflect an improvement in the above-mentioned areas of concern. Equality of access to education by sex, region, religious, ethnic or other group; equity among income levels; the quality of education; the internal efficiency of the system (drop-out and repeater rates, unit costs per graduate); and external efficiency (the relationship of the skills taught to the demand for them in the labor market) are all priority sector issues that shed light on the costs and benefits of expansion of the school system.

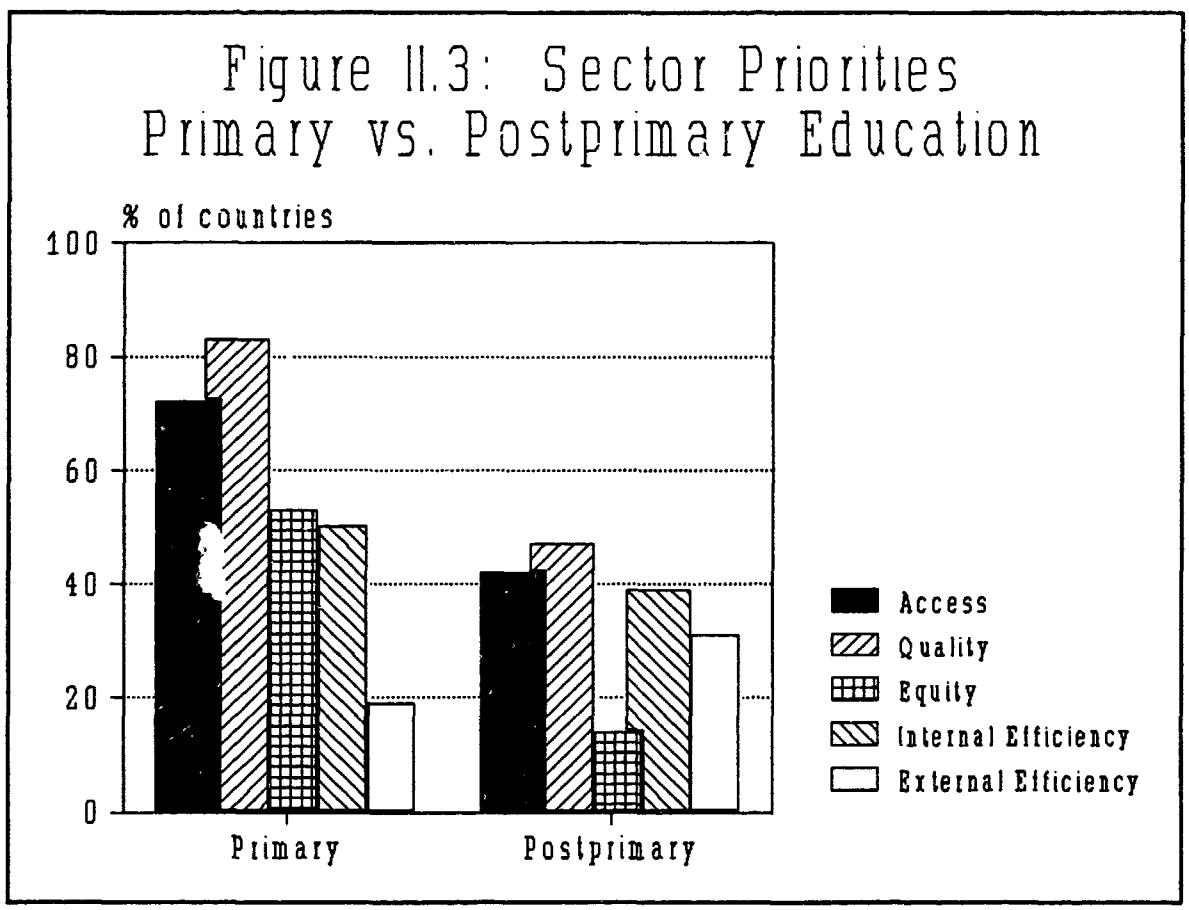
2.21 Figures II.3 to II.5 categorize reports that not only mention these sector issues but explicitly treat them as priorities. Figure II.3 divides the treatment of the issues by primary and postprimary education; figures II.4 and II.5 graphically present the difference in coverage of these priorities according to the typology. The discussion that follows includes reports that mention the issues without necessarily prioritizing them. The percentages given may, therefore, differ slightly from those in the graphs, which measure explicit priorities.

2.22 Stated sector priorities in the reports reviewed (figure II.3) appear to be largely focused on the primary level, particularly in the case of access, quality, and equity issues. This focus is in line with current thinking inside and outside the Bank, which emphasizes primary education as the key to universal basic literacy. From an overall sector management perspective, however, there is no rationale for access, quality, and equity issues commanding a lower priority at the postprimary level than at the primary level.

2.23 Expansion of the education system is most frequently mentioned as a sector priority at the primary level, and, as one might expect, particularly in low PE countries in the low-income range. Postprimary expansion is more often an objective in high PE

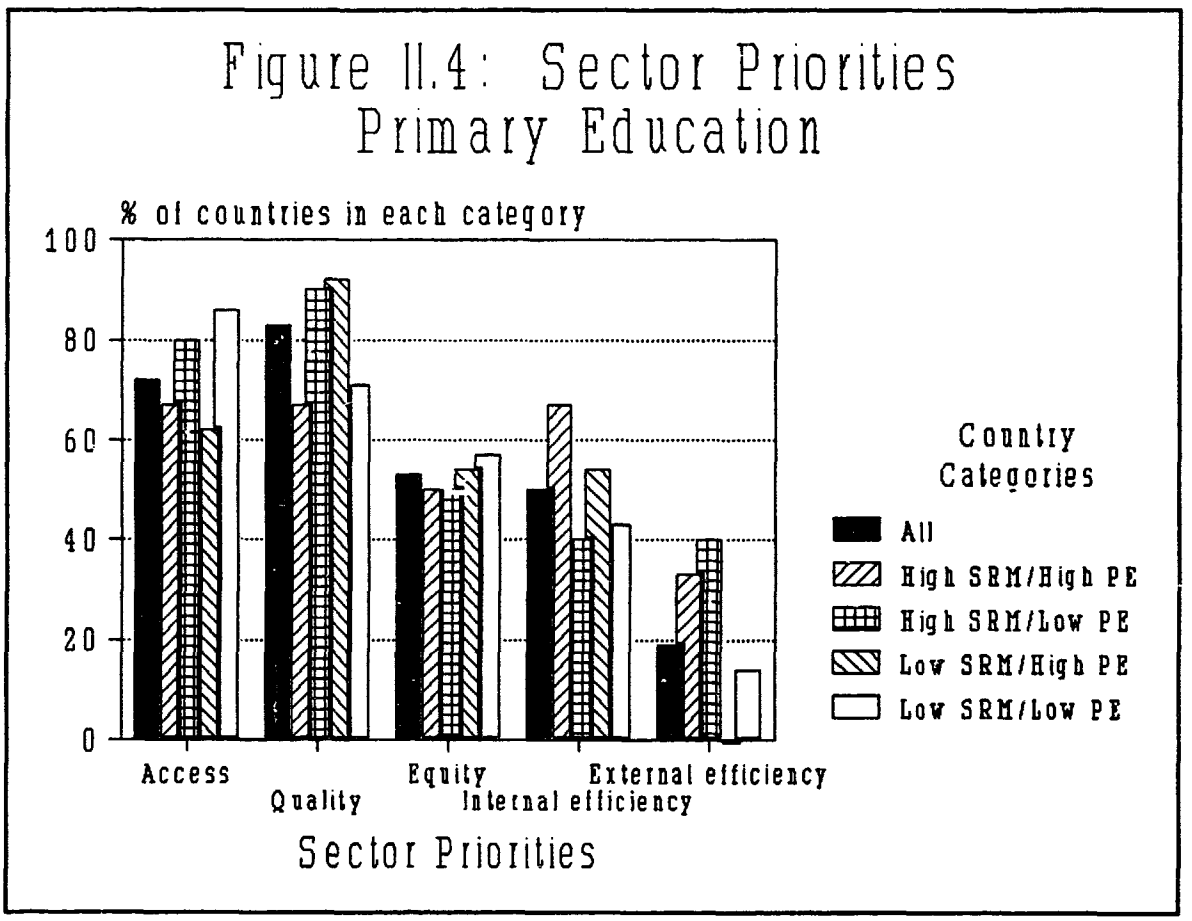
countries. Primary expansion is suggested most frequently for countries in the low SRM/low PE group, whereas postprimary expansion is advised for high SRM/high PE countries.

2.24 Similarly, the need to improve access to primary education is most frequently suggested for low SRM/low PE countries, but in the middle-income rather than low-income range. Interestingly, equity issues concerning postprimary levels are most frequently mentioned with respect to the group of countries that combine a high primary enrollment rate with a low sector resource situation (high PE/low SRM). Special concerns are the urban poor, rural areas, girls, and disadvantaged regions and ethnic groups.



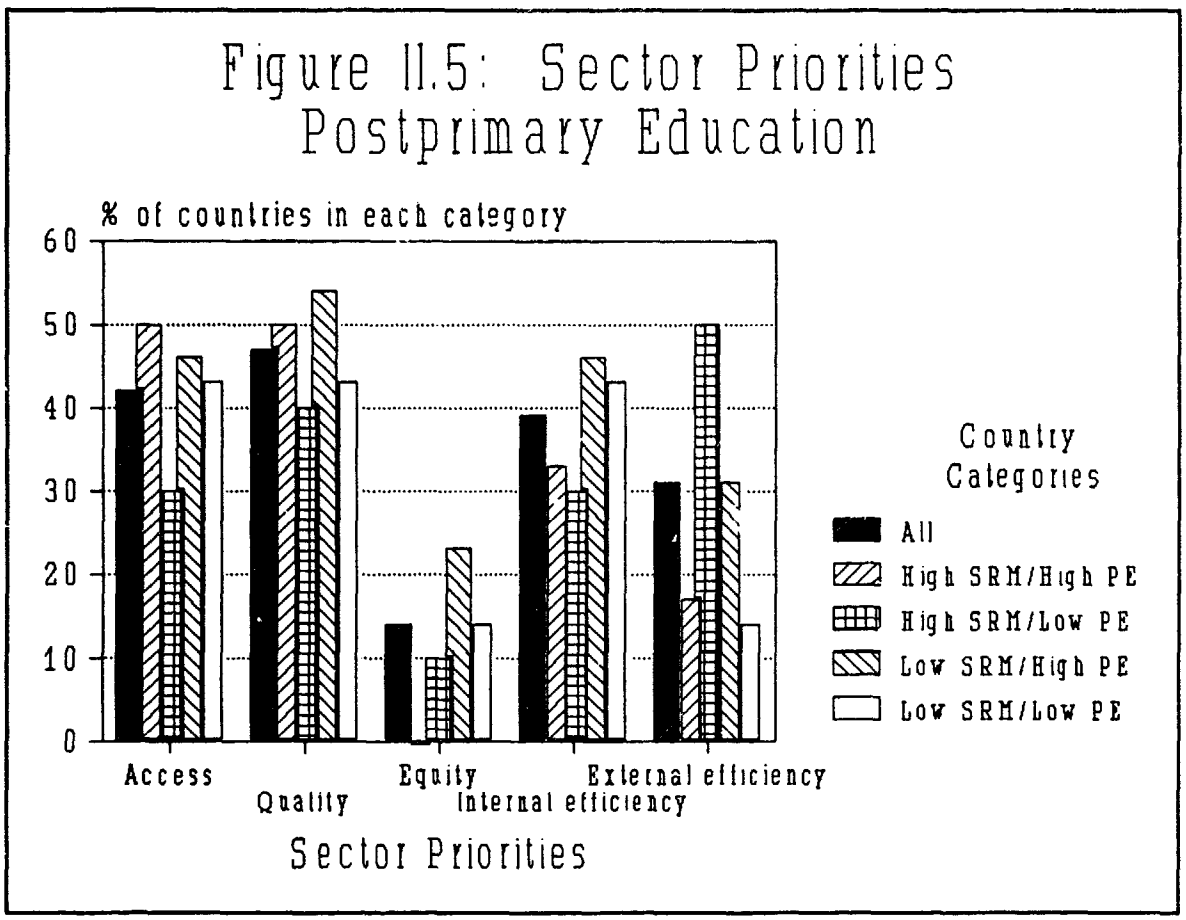
2.25 Education quality. Thirty of the 36 countries at the primary level and about half of the countries at the postprimary level recommend improvements in education quality. Specific quality concerns include more supplies and materials; better maintenance, teacher training, and management and supervision; curriculum improvements; and higher teachers' salaries, especially for teachers of quantitative subjects.

2.26 At the primary level, quality improvement is a stated priority among low-income countries more often than among middle-income countries. At this level, moreover, it has the highest incidence among countries that combine a low SRM with a high PE, or vice-versa, suggesting that an imbalance between sector resources and sector output raises specific equity issues (see annex III). At the postprimary level, recommended quality improvements appear to be unrelated to a country's SRM or PE situation.



2.27 Internal efficiency. Almost all reports provide data on drop-out and repeater rates, student/teacher ratios, and unit costs per student. All but three reports (Botswana, Central African Republic, and Sierra Leone) discuss internal efficiency, particularly at the primary level. A principal objective is to reduce unit cost per graduate by improving student flows and transition rates and increasing school retention. However, only one

report (Malawi) actually presents data on unit cost per graduate, rather than per student.[3/] Instead, the reports concentrate on gross versus net enrollment and drop-out and/or repeater rates as indicative of the gap between cost per student and cost per graduate.



2.28 All of the countries where public spending per student (rather than total unit cost per student) is considered excessive are advised to reduce it, usually by increasing internal efficiency. As is the case with equity issues, concern for internal efficiency is most common in countries with an imbalance between sector resources and output (either high SRM/low PE or low SRM/high PE countries). At the primary level, internal efficiency is most important in high PE countries--that is, countries where high enrollment has already been achieved, perhaps at the expense of quality and cost-efficiency of output (figure II.4).

[3/]Per graduate expenditure is the cost of producing a graduate of a particular education program, taking into account the total number of years of educational output required at the prevailing internal efficiency rate. Total educational output, at a given annual per student cost, includes wastage from repeaters and drop-outs.

At the postprimary level, low SRM countries--that is, countries where resources are constrained--exhibit most concern for internal efficiency issues (figure II.5). Although internal efficiency ranks high as an identified sector issue both at the primary and postprimary levels, only half the reports recommend policies designed to improve internal efficiency--policies that would lead to better qualified teachers, more materials, lower unit cost per graduate, and so on. For example, only 10 of 25 countries where drop-out and repeater rates are considered to be a problem are specifically advised to reduce them.

2.29 The relationship of the internal efficiency improvements recommended in the education sector chapter to the overall cost and financing analysis of the macro chapters is particularly weak. How many more (or fewer) teachers? What is the cost of upgrading the quality of teachers? How does the goal of lower unit cost per graduate relate to the various components of unit cost per student, and what are the immediate and longer term implications of this goal for the education budget?

2.30 External efficiency. About two-thirds of the reports argue that education sector expenditures are inefficient on the basis of external efficiency criteria. This problem is cited most frequently for high PE countries, and in single-sector reports. Eighteen reports describe unemployment rates by level of education completed. Of these, 12 cite figures for unemployment rates among higher education graduates. One-third of the reports recommend improving the external efficiency (employment of graduates) of the education system, although again the details, particularly regarding costs and benefits, are often unspecified.

2.31 Few, primarily high SRM countries, prioritize external efficiency at the primary level. Concern for external efficiency is much greater at the postprimary level among all country categories, but particularly among countries with an imbalance of indicators (high SRM and low PE or vice versa). In general, concern for the external efficiency of education is significantly higher in high PE than in low PE countries (74 percent versus 47 percent of the reports). This seems logical, suggesting a critical PE level below which concerns for the social returns (basic needs, literacy, equity, poverty-alleviation, and so on) to investment in primary education prevail, and above which concerns for economic and private returns to more costly investment in postprimary education and training take over. Unfortunately, few reports mention the effects of noneducation and macroeconomic policies on the external efficiency of education/training processes.

F. Overall Assessment

2.32 Many reports seem to include education in the expenditure analysis as a defensive strategy--to avoid being criticized for the sin of omission. In only a few is education an integral part of the economic development or adjustment strategy. As a result, it is often unclear how the implementation of sector priorities would affect economy-wide goals.

2.33 The opposite is also true, although less frequently. In many instances, the sector review has taken place in a void wherein the only connection to the overall economic environment is a budget constraint. Inadequate attention is paid to external factors and

policy priorities that may influence education policy, with the exception of demographics. In particular, few reports clearly analyze how changes in a country's product mix (moving from nontradables to tradables, for example) are linked to education requirements.

2.34 It is difficult for poor countries to allocate donor financing efficiently. From the perspective of the PER, a first step toward more efficient allocation is to collate all outside financing to the sector by project and by its capital and recurrent components.

2.35 Reports have become much more attentive to questions of sustainability in recent years, but insufficient attention is still paid to conflicts between medium- and long-term priorities. Except for the budget constraint, reports exhibit little concern for proposed reforms (rather than those already achieved) and for the political and institutional, rather than strictly economic, impediments to sustainability.

III. SECTOR COSTS AND FINANCING

3.01 The analysis of sector financing, and of the costs of the services provided, forms the core of the public expenditure review, which leads to the formulation of financing strategies and to the assessment of their overall effect on the budget. What is the current and prospective level of sector resources relative to defined priorities and objectives, and how efficiently does the sector manage these resources? In this context, one might expect education PERs to take a clear position on the following issues:

a) The adequacy of the resources allocated to the sector.

b) The potential for nongovernment resources to be mobilized in the sector.

c) The adequacy of the intrasectoral allocation of budgetary resources.

d) The efficiency of public management of sector resources.

3.02 There is enormous diversity in coverage, quality, and presentation among education PERs with regard to the analysis of sector cost and financing issues. Greater standardization is needed, particularly since many operationally relevant conclusions in this area appear to rely on ad-hoc international comparisons. The credibility of such conclusions needs to be enhanced through specific research focusing on the development of more appropriate and more widely applicable norms and standards, or commonly accepted analytical procedures.

A. Budgetary Resource Allocation

3.03 Among the 36 reports, 16 consider the level of government spending on education to be insufficient, and 8 to be relatively high. As many as 12 reports, of which 9 are multisector PERs, do not make a judgment on this issue. Among these 12 reports, there are cases of apparent sector underfinancing, with budgetary allocation to the sector as low as 8 percent of total government expenditures (for example, Tanzania and Zambia). There are also cases of relatively high, and likely unsustainable, budgetary allocation. For example, Rwanda has allocated 28 percent of its budget to education--a budget that is heavily constrained by a low rate of public resource mobilization (13 percent of GNP).[1/]

[1/] As documented in annex III, country characteristics (such as sector resource mobilization, public resource mobilization, sector resource allocation, and the primary enrollment rate) are assessed against the median value of each characteristic in the sample of 36 countries covered in the study: **SRM**, 2.67 percent of GNP; **PRM**, 16.7 percent of GNP; **SRA**, 16.0 percent of total government expenditure; and **PE**, 80.85 percent gross primary enrollment rate. Such assessments are comparative findings rather than normative judgments. As such, however, they point to a potential issue requiring further attention. Rwanda's budgetary allocation to education is comparatively high, but whether it is too high depends on a host of other factors.

3.04 By and large, assessments of government financing for education are consistent with the country typology established for comparative analysis. As shown in table III.1, the proportion of reports considering government spending to be insufficient, or high, is related to the *sector resource mobilization* (SRM) criterion and, to a lesser extent, to the *primary enrollment* rate (PE) criterion; 13 of the 16 "insufficient" assessments relate to low SRM countries, and 7 of the 8 "high" assessments are for high SRM countries.

3.05 Government spending on education (SRA) is considered insufficient in three high SRM countries: Burkina Faso, Ghana, and Lesotho. All three are in the low-income range, and the first two also have a relatively low sector output in terms of primary enrollment rates, which to some extent justifies the assessment.[2/] Government spending on education is rated high in one low SRM country, Madagascar (2.4 percent of GNP). The basis for this assessment lies perhaps in the report's narrow focus on the budget allocation to the sector (16 percent), which is the sample's median value, without due attention to its relatively low overall public resource mobilization (15.1 percent, compared with 16.7 percent for the sample).

Table III.1: Government Spending on Education

Country Groupings	Low	High	No Position	Total
Low SRM/Low PE	5 (71%)	0 (0%)	2 (29%)	7 (100%)
Low SRM/High PE	8 (61%)	1 (8%)	4 (31%)	13 (100%)
High SRM/Low PE	2 (20%)	4 (40%)	4 (40%)	10 (100%)
High SRM/High PE	1 (17%)	3 (50%)	2 (33%)	6 (100%)
Total	16 (43%)	8 (22%)	12 (33%)	36 (100%)

3.06 Assessments of the adequacy of government spending on education are based on international comparisons or country trends, and often on both approaches combined. However, the nature of international comparisons and the type of trends examined differ widely country by country, along with the quality and credibility of the assessment.

3.07 First, the definition of the government's financial commitment to the sector differs from country to country. Reports usually focus on the share of education in total or recurrent government expenditures, or on the ratio of government education expenditures

[2/]Burkina Faso is also a border case with respect to SRM: 2.9 percent of GNP versus the sample's median value of 2.79 percent.

to GNP. Both approaches have weaknesses that can compromise the interpretation of trends or of international comparisons, unless they are used in combination. Budget allocation percentages (total or recurrent) show the government's financial commitment to the sector, but fail to measure the ultimate impact of this commitment on the effective mobilization of sector resources relative to the national resource base. Niger and Senegal, for example, both allocate about 21 percent of the government budget on education, but this commitment represents more than 4 percent of GNP in Senegal and only about 2 percent in Niger. Alternatively, public spending on education in Niger and Cameroon represents about the same percentage of GNP, but in Cameroon this outcome reflects a significantly lower level of government financial commitment to the sector (about 13 percent of the budget) than in Niger.

3.08 Second, the standards used in international comparisons differ markedly. Government financial commitment to education can be measured against the corresponding average for all LDCs combined, for the entire continent, for the region, for selected individual countries, or for a specific LDC income group. In a number of cases (6 of 22 international comparisons), government spending on education is vaguely characterized as higher/lower than in "other" or "similar" countries (with or without regional reference). This comparative evidence, which is often used to make a case for spending more on education, does not have a solid analytic base. Turkey's report is an example of good practice in this respect: it makes comparisons with other countries not necessarily in the same region or with the same income but according to specific criteria. For example, it compares enrollments by level of education and government spending on education as a share of all government spending and as a share of GNP with South Korea, another country committed to growth from the export of manufactured goods.

3.09 Third, whereas most reports analyze internal efficiency issues, few integrate this analysis with the overall assessment of the government's financial commitment to the sector. Similarly, international comparisons of government spending on education ignore crosscountry differences in sector efficiency, which further limits their usefulness.

3.10 Ten of the reports focus on the implications of the sector resource constraint for beneficiaries, as evidenced by a decline in real expenditures per student, and eight of these incorporate this evidence into the assessment of the government's financial commitment to education. A number of reports cover the evolution of real expenditures and student enrollments, but do not derive the underlying trend in unit expenditures. Unit expenditures per graduate rather than per student, which conveniently integrate the internal efficiency dimension in the sector cost and financing analysis, are mentioned in only three reports (Malawi, Morocco, Lesotho), and actually quantified in only the first of the three. Again, the lack of information on unit costs per graduate reflects the tremendous difficulties in obtaining or estimating these figures.

3.11 Over one-third of the reports describe a decline in the share of public expenditures allocated to education; most do not explain the phenomenon, or they refer vaguely to adjustment-related austerity measures. Several reports simultaneously express concern about a substantial decline in real teachers' salaries, which makes it harder for the education system to attract and retain qualified staff. Few reports, however, make the

connection between the relative evolution of personnel versus nonpersonnel expenditures, and what ultimately happens to the share of government expenditures going to education. A fall in civil service wages relative to the average price of nonpersonnel expenditures, other things being equal, seemingly leads to a reduction in the share of government spending accruing to the most labor-intensive sectors, among which is education (see box III.1). This tendency is further exacerbated where teachers' salaries have declined more than the average civil service wage.

3.12 The Bolivia report is an interesting exception in this respect. It acknowledges that the country's adjustment program has resulted in a decline in government social spending in real terms and as a share of total expenditures (spending declined from 35 percent in 1984 to 25 percent in 1986 and then recovered to 30 percent in 1988). It argues, however, that the "social cost of adjustment" is not as high as the evidence suggests because the expenditure item that has fallen is salaries, particularly of teachers, whereas purchases of school materials and health supplies were about ten times higher in 1988 than in 1984. The report concludes that, while the fall in teachers' salaries would lower the quality of education in the long run if not remedied, expenditures on materials and supplies "have a more direct short-term relationship with the quality of the services rendered." Hence, the evidence indicates "that quality has improved following the adjustment."[3/]

3.13 Public expenditure reviews should give more attention to the relationship between structural adjustment and public resource allocation to social sectors. This issue is much more complex than can be observed from aggregate intersectoral resource allocation percentages, which are sometimes targeted in policy-based Bank lending for education. They are rather unreliable indicators of government intentions and performance, unless these expenditures are broken down by purpose or by end use, and can be compared with sector objectives.

B. Non-Central-Government Resources

3.15 With a few exceptions, all reports cover non-central-government financing at various levels of the education system, providing scattered quantitative or qualitative evidence (see figure III.1). PER emphasis on the mobilization of nongovernment resources is most prevalent for low SRM countries, as well as for high PE countries where sustaining a high primary enrollment rate requires the continuing availability of complementary financing.

[3/]Bolivia--Public Sector Expenditure Review with a Special Emphasis on the Social Sectors (Report No. 7746-BO, September 1989), Chapter III, pp. 25-27.

Box III.1: Civil Service Wages and Public Spending on Education

How do relative changes in civil service salaries affect public spending on education? Consider this simple example. A country has an initial government budget of 100 units, distributed as follows:

Situation 1:	Government Budget		
Expenditures	Total	Education	Share of Education in Total
Personnel	40 (40%)	14 (78%)	35%
Nonpersonnel	60 (60%)	4 (22%)	7%
Total	100 (100%)	18 (100%)	18%

Education absorbs 18 percent of the total budget (recurrent and capital, but excluding the debt servicing burden).[a/] Personnel expenditures account for 40 percent of total government expenditures, but they represent about twice this much in the education sector budget (78 percent).

In many countries, particularly in Sub-Saharan Africa, adjustment and budgetary retrenchment have led to a drastic decline in civil service wages. This is particularly true where governments have protected employment rather than incomes.[b/] Situation 2 assumes a 50 percent cut in personnel expenditures, reflecting an identical cut in average wages at an initially constant government employment rate. The wage cut is identical in all government sectors; nonpersonnel expenditures remain constant in real terms.

Situation 2:	Government Budget		
Expenditures	Total	Education	Share of Education in Total
Personnel	20 (25%)	7 (64%)	35%
Nonpersonnel	60 (75%)	4 (36%)	7%
Total	80 (100%)	11 (100%)	14%

Whereas the share of education in each expenditure component has remained constant (35 percent for personnel expenditures and about 7 percent for nonpersonnel expenditures), its share of the total budget has automatically declined from 18 percent to 14 percent because of the higher incidence of personnel costs. Personnel costs have declined from 78 percent to 64 percent of the sector budget.

(continued)

Box III.1 (continued):

Pressure is strong to increase government employment, overall and at the sector level, at the cost of nonpersonnel expenditures, particularly material consumption.[c/] Situation 3 assumes that half the decrease in real wages is offset by incremental hiring, albeit within the new budgetary ceilings prevailing in Situation 2.

Situation 3:	Government Budget		
Expenditures	Total	Education	Share of Education in Total
Personnel	30 (38%)	10.5 (95%)	35%
Nonpersonnel	50 (62%)	0.5 (5%)	1%
Total	80 (100%)	11.0 (100%)	14%

The personnel budget has shrunk, while the number of civil servants has grown. Consequently, personnel costs have increased from 78 percent to 95 percent of the sector budget, and the proportion of nonpersonnel expenditures has eroded.

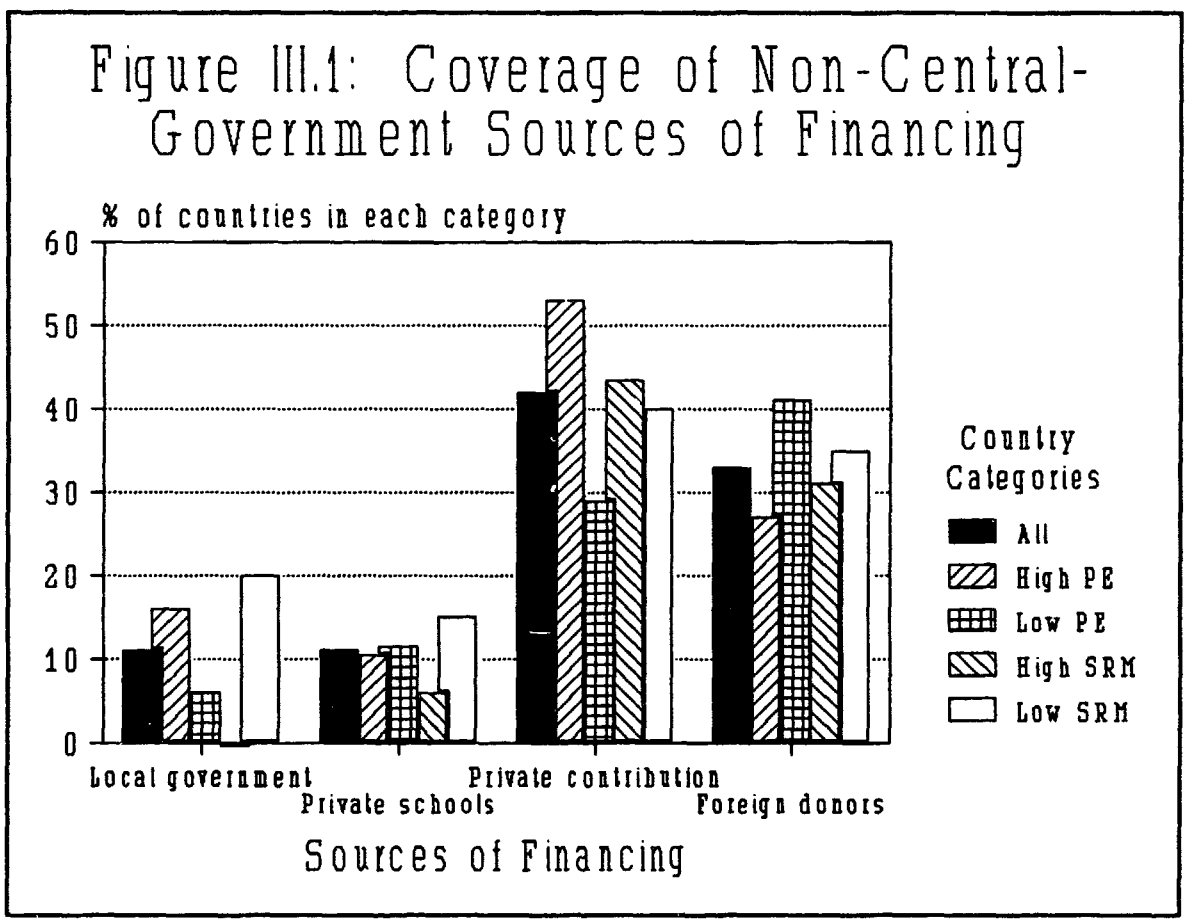
This scenario makes clear that change in the allocation to the education sector is not always the result of concrete reallocative decisions. In fact, if the share of education in the total budget remains unchanged in the face of a government-wide fall in real wages, the sector perhaps is being sheltered from the effects of adjustment.

[a/]Situation 1 is based on the following assumptions: 20 percent of the recurrent budget is allocated to education but only 10 percent of the capital budget; the ratio of recurrent to capital expenditure in education is 10:1; and personnel costs account for 50 percent of the total recurrent budget and 85 percent of the recurrent education budget.

[b/]Average civil service salaries in Zaire, for example, fell by more than 80 percent between 1975 and 1985 (Zaire--Education Sector Memorandum, Report No. 7169-ZR, February, 1989).

[c/]Until recently, many countries guaranteed public employment for graduates of secondary and higher education. At the sector level, demographic pressure combined with low initial enrollment rates create a rapidly increasing need for teaching staff.

3.16 Thirteen reports refer to the provision and financing of educational services by local governments, but few provide quantitative estimates, and in some cases it is not clear whether and to what extent local governments are financed through the central government budget. Most reports mention private education financing, either through private schools or through parental contributions to the financing of public schools, but again they cite scant quantitative evidence. Only about one-third of the reports give the contribution of foreign donors to the financing of the sector's capital or recurrent budget. The last area is clearly one in which the Bank is well positioned to assist in providing better oversight. Chapter V discusses each of these items in detail (para. 5.09-5.19).



3.17 On the whole, the design of sector financing strategies requires a more comprehensive assessment of total national spending on education, and of its distribution among the various participating actors, than is usually reflected in education PERs. Admittedly, the time and effort needed to generate such a comprehensive assessment are well beyond the resources available for PERs. It is therefore the function of sector work to try to provide the required knowledge base. A comprehensive statement of the financing structure of the public education sector, which includes contributions from sources other

than the central government, remains a minimum requirement. In several of the reviewed cases, such an evaluation could have been provided since most of the required information was contained in the report but not integrated, or was available from sector work but not used (see boxes III.2 and III.3).

Box III.2 Public Spending on Education in Haiti and Tanzania

Haiti's education indicators resemble those of low-income African countries more than those of its Caribbean neighbors or Asian low-income countries. But unlike most African countries, the Haitian educational system depends heavily on nongovernment financing sources. Public recurrent and investment expenditure for FY 1983 was about 9 percent of all government spending, equal to about 1.5 percent of GDP. Total education expenditure--public and private--amounted to more than 6 percent of GDP, of which only about 20 percent was funded from the Treasury. Thirty percent came from external sources and from local and foreign charities (official donor aid plus religious organizations and NGOs); fifty percent came from parents.

Public spending on education in Tanzania represents a larger share of GDP, 2.4 percent in FY 1987. Although local authorities and parents spend some on primary education, these amounts are small relative to the total budget. Since the central government provides almost all education financing, total sector spending in Tanzania remains at about 2.4 percent of GDP despite education's similar share of the public budget (10 percent compared with 9 percent in Haiti).

One might conclude that Tanzania and Haiti have a comparable commitment to education and that this commitment is reflected in roughly comparable output indicators (gross primary enrollment rates of 78 percent of the age group in Haiti and 69 percent in Tanzania). This conclusion, however, would be inaccurate. Haiti's education sector receives almost three times more resources (as a percentage of GDP) than does Tanzania's, but with the same outcome, less equitably distributed, at the primary level. Thus, when all inputs are taken into account, the Tanzanian situation still reflects acute underfinancing of the sector, while the primary issue in Haiti is one of inefficient and inequitable management of sector resources.

Sources: "Haiti: Public Expenditure Review," Report No. 6113-HA (September 26, 1986); and "Tanzania: Public Expenditure Review," Report No. 7559-TA (May 22, 1989).

Box III.3: Calculating a Multiresource Budget for Education Spending

In 1986/87, Rwanda committed about 23 percent of capital and recurrent public expenditure--about 3 percent of GDP--to public education. Central government recurrent spending represented about 80 percent of total sector financing. Financing varied substantially by level of education. Municipalities (local government) contributed only to primary and vocational education; foreign donors supported only secondary education and university. The contribution of parents increased with the level of education, then dropped to 0 percent at the university level. Only vocational schools and the university had minor amounts of self-financing.

	Level of Education				
	Primary	Vocational	Secondary	University[a]	Total
Financing Source					
Central government	84.3%	75.8%	74.0%	92.0%	82.4%
Municipalities	5.5	4.0	---	---	3.9
Self-financing	---	2.3	---	1.9	0.4
Parents	10.2	17.9	20.2	---	11.8
Foreign cooperation	---	---	5.8	6.2	1.6
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Public spending/student	50	191	611	4,258 ($US)	
Total unit cost/student	59	253	825	4,630 ($US)	

[a]1985/86

Source: "Rwanda: Rapport sur le coût et financement de l'enseignement primaire, secondaire et supérieur," Report No. 7362-RW (1989).

The variation in the degree of public subsidization (government spending as a percentage of total spending) demonstrates clearly the importance of determining and including all major financing sources, although these may vary substantially from country to country, in any comprehensive sector expenditure analysis. Since the composition of non-central-government spending on education also varies greatly by level of education, analyses of intrasectoral resource allocation that are based only on central government expenditure may seriously misrepresent the commitment of national resources to each level of education.

C. The Intrasectoral Allocation of Budgetary Resources

3.18 Intrasectoral resource allocation issues are identified in 27 of the 36 reports, leaving 9 reports without diagnosis in this area. Most reports state that current allocations benefit higher education at the expense of primary or basic education.

3.19 There is greater unanimity on excessive public funding of higher education (23 reports) than on underfunding of primary education (17 reports). Some reports describe other levels or areas of the education system as overfunded or underfunded. Nine reports consider that the secondary level is receiving an inordinate share of the education budget, and two reports (Bangladesh, Rwanda) judge the allocation to vocational training to be excessive. Underfunding of vocational education is noted in five reports; of secondary education, one report (Côte d'Ivoire); and of higher education, one report (Turkey). Regarding government underfunding of vocational training, four of the five cases relate to countries with a low level of sector resource mobilization (Guinea, Niger, Turkey, and the Philippines).

3.20 In most cases, a statement that too little is spent at the primary level (or other level) is accompanied by a statement on the subsector (predominantly higher education) that receives too much. However, there are also quite a number of "partial" assessments --that is, of a subsector receiving proportionally too much without a corresponding indication of which subsector suffers most from this misallocation, or vice-versa.

3.21 As might be expected, the assessment of the intrasectoral allocation of public resources with regard to the trade-off between primary and higher education is strongly related to the primary enrollment rate of the respective countries (see table III.2). Thus, 71 percent of the reports covering low PE countries consider budgetary allocations to primary education insufficient, compared with only 26 percent of the reports for high PE countries; the tendency is identical with respect to higher education. The only two exceptions to this pattern among the 17 low PE countries (Sierra Leone, Jordan) are reports that do not take a position on this issue at all; on the other hand, among the 19 high PE countries, 5 (Madagascar, Zambia, Turkey, Lesotho, Honduras) explicitly consider resource allocation to primary education to be insufficient.

3.22 The pattern of PER evaluations of the relative allocation of public resources to primary and higher education bears a much weaker relationship with overall sector resource mobilization (SRM) than with the primary enrollment rate. Concern for the issues at hand is somewhat stronger, however, in high SRM countries than in low ones. Consistently, the highest proportion (90 percent) of reports with explicit reference to an excessive allocation of public resources to postprimary education is among the category of countries that combine a comparatively high SRM with a low PE, which indicates inefficiencies in the management and intrasectoral distribution of sector resources.

3.23 Five of the nine reports that do not take a position on this issue are from countries that combine a low SRM with a high PE, that is, countries where sector financing between public and private sources at the primary level may be distributed inequitably (Cameroon, Malawi, Nigeria, Tanzania, Colombia).

Table III.2: Intrasectoral Allocation of Sector Resources
(Percentage of reports in each category)

Country Groupings	Insufficient Allocation to Primary Education	Excessive Allocation to Higher Education	No Assessment
Low PE (17)	71	77	12
High PE (19)	26	53	37
Low SRM (20)	40	60	30
High SRM (16)	56	69	19
Total (36)	47	64	25

Note: Parantheses indicate the number of reports in each category.

3.24 Judgments in the reports about the allocative equity and efficiency of government spending on the respective levels of education are based on two types of criteria: (i) the distribution of the sector budget (recurrent, capital, or total) relative to the corresponding distribution of student enrollments among the various education levels; (ii) the ratio of public expenditures per student at the various levels to unit expenditures at the primary level, or to per capita GNP. In both approaches, regional comparisons sometimes complement the analysis. Neither approach explicitly considers internal efficiency or quality differences between the various levels and types of education. As a result, assessments of the adequacy of the intrasectoral allocation of the education budget, even though well-intentioned and seemingly rational, all reflect a varying degree of arbitrariness.

3.25 As an example of the first approach, both the Burkina Faso and the Senegal reports consider the intrasectoral allocation of public resources skewed in favor of higher education. Burkina Faso allocates 32 percent of its education budget to higher education; Senegal, only 19 percent. But higher education serves about 1.5 percent of the total student population in Burkina Faso, and close to 2 percent of it in Senegal. Both countries combine a high degree of sector resource mobilization with a low primary enrollment rate. Whereas the diagnosis of a misallocation of sector resources may appear intuitively credible in the case of Burkina Faso, it is less so for Senegal, where the overriding issue might be the inefficient use of resources at all education levels.

3.26 A few of the reports appeared to advocate reallocating resources to primary education solely because of the distribution of the education budget, not because of the corresponding distribution of enrollments. Among the countries advocating such a

reallocation, the share of primary education in the recurrent sector budget varies between 33 percent and 69 percent. These examples illustrate the inherent weaknesses of the approach. The fact is that there are few operationally meaningful comparative standards, at least at such an aggregate level of analysis.

3.27 In the second approach, the analysis is in principle more refined, and its outcome potentially more credible, since it focuses directly on the beneficiaries of government spending. Even then, however, most reports remain essentially concerned with expenditures per student at the different educational levels, rather than focusing on actual unit outlays for basic educational necessities, and on the extent to which minimum requirements are being satisfied.[4/] Again, comparing PER assessments across countries provides a striking picture of the lack of credible comparative standards in the sector (see table III.3). According to the PERs for which unit expenditure data are available on a more or less comparable basis (16), the ratio of unit expenditures in higher education to unit expenditures in primary education ranges between 6 (Philippines) and 208 (Tanzania).[5/] For most countries represented in this range, PERs conclude that spending on primary education is insufficient; yet public expenditures per primary student for these countries ranges from a low US$14 (Zambia) to as much as US$142 (Côte d'Ivoire). Clearly, comparison of expenditures per graduate, rather than per student, would be more meaningful.

3.28 A more fundamental problem with calculations of unit expenditures per student or graduate is that recurrent government spending on education is almost exclusively wages and salaries for teaching and nonteaching personnel. Teachers' incomes are inherently noncomparable across countries, and even within a country's civil service wage structure, because of the large variation in educational requirements, opportunities to earn outside income, teaching load, teaching hours, and so on. More useful tools for crosscountry comparisons would be the ratio of costs per graduate to GNP per capita, nonsalary expenditures per graduate (or even per student) on materials and supplies, or the ratio of nonsalary to salary expenditures per unit of output (graduate or student). Indeed, the Bank has recently recommended increasing nonsalary recurrent expenditures by US$5 per student in low-income countries and US$4 per student in lower-middle-income countries. Research has shown that investment in quality-enhancing inputs boosts student learning and can reduce dropout and repeater rates, thereby yielding significant cost savings.[6/]

[4/]Satisfaction of minimum educational input requirements is actually being assessed, or touched upon, in many reports with respect to primary education, but very seldom for the higher levels. The assessment thus does not play an integral role in the analysis of intrasectoral allocation issues.

[5/]Most reports refer to "unit costs," which may or may not cover private costs, capital costs, or both. In fact, in most cases, unit costs appear to be limited to government recurrent expenditure (often budgeted rather than actual).

[6/]Marlaine E. Lockeheed and Adriaan M. Verspoor, Improving Primary Education in Developing Countries, The World Bank, 1990, p. 122-3 (draft).

Table III.3: Public Recurrent Expenditures per Student in Primary and Higher Education

Country	Year	Primary US$	Higher US$	Ratio of Higher to: Primary	Ratio of Higher to: GNP per capita
Botswana	(84)	97	4,887	50	4.7
Burkina Faso	(85)	43	1,989	46	10.5
Costa Rica	(86)	134	1,435	11	.9
Côte d'Ivoire	(85)	142	3,703	28	5.0
Ghana	(85)	38	3,095	81	7.9
Lesotho	(86)	23	3,527	153	9.5
Mali	(88)	65	1,161	18	5.5
Niger	(86)	104	2,412	23	9.3
Nigeria	(85)	73	4,834	66	13.1
Pakistan	(84)	24	184	8	.5
Philippines	(86)	44	258	6	.4
Rwanda	(86)	52	4,458	86	14.9
Tanzania	(86)	18	3,740	208	20.8
Turkey	(84)	49	609	12	.5
Zambia	(86)	14	2,162	154	8.6
Zimbabwe	(85)	93	2,391	26	4.1

Note: In principle, the numbers in this table represent recurrent government expenditures per student in public institutions (see footnote 2).

3.29 In some cases, reports also base their judgment on recent trends in the distributional pattern of government education expenditures. Thus, an increase in the share of higher education in the sector budget at the expense of primary education is taken as further evidence of a misallocation of public resources. However, just as a decline in civil service wages relative to the price of nonpersonnel expenditures may lead to a nondiscriminatory reduction in the share of education in total expenditures (see box III.1), the same tendency also holds with respect to intrasectoral resource distribution. A decline in wages will therefore tend to raise the share allocated to higher education, a material-intensive and capital-intensive subsector, and to lower the share to primary education, the most labor-intensive subsector.

3.30 Evidently, no single indicator suffices in providing a valid assessment of the "appropriateness" of the intrasectoral distribution of government education expenditures. Unless sector output goals are clearly defined, and process efficiency analyzed, judgments remain at best tentative.

D. Management of Sector Resources

3.31 All reports except two (Mexico, Zimbabwe) refer to inefficiencies in the management of sector resources that impair the cost-effectiveness of the education system. Three types of wastage are encountered: (i) imbalances in the distribution of sector resources among various expenditure categories; (ii) low internal efficiency, largely reflected in low student promotion and retention rates and suboptimal student/teacher ratios; and (iii) low external efficiency, reflected in poor labor market outcomes for graduates. The first two factors tend to raise operating costs per student or per graduate, reducing the educational outcome obtainable for a given level of sector resources, while the third reduces the economic returns from educational investments.

3.32 Internal and external efficiency have been addressed in the context of sector priorities (chapter II. E.), and the lack of integration between these two sets of issues and the analysis of sector costs and financing has been observed in the preceding sections of this chapter. This section focuses on the first, more narrowly defined category of resource management issues. It will review in particular the treatment of recurrent versus capital expenditures, and of personnel versus nonpersonnel expenditures.

3.33 Recurrent versus capital expenditures. Seven reports cover only the recurrent or only the capital budget. With one exception, all these reports were published before 1988. All the others cover both budgets, although the depth of analysis varies greatly. Broadly speaking, 23 reports compare the share of the sector budget allocated to recurrent and capital expenditures. Among these, the share of recurrent expenditures varies between wide margins (55 percent to 99 percent).

3.34 Definitions and coverage vary greatly. Capital expenditures are found under the heading of the capital, development, or investment budget. More importantly, these budgets may or may not include foreign financing; reports do not always make this clear. In most cases, nonrecurrent budgets include some de facto recurrent outlays. Few reports analyze the details of these budgets to identify "true" capital outlays, and, within that category, the part of investment in capacity expansion versus capacity rehabilitation. The capital costs generated by the absence of maintenance and repair of equipment and facilities (that is, by the shortage of recurrent funding) thus receive little attention.

3.35 Nine reports conclude that capital investment needs are underfunded. Five of these state only that the part of sector resources allocated to capital expenditures is small or declining (Bolivia, Costa Rica, Peru, Kenya, Mali); another three recommend increasing the level, though not necessarily the share, of capital expenditures (Colombia, Guatemala, Turkey). The Madagascar report advises increasing capital investment in primary education through reallocation of resources from secondary and higher levels.

3.36 Ideally, in a PER context, one might expect an analysis of the sector investment program and its recurrent cost implications or, in a more normative approach, the identification of a "core" investment program, the recurrent cost implications of which can be met from the projected increase in sector resources. Fourteen reports, including eight multisector PERs, do not cover the sector investment program at all. Thirteen reports

describe public investment plans, or at least they estimate future sector investment. Few of these, however, address the recurrent cost implications. Only nine reports define a specific core investment program or recommend cutting the government program to bring incremental recurrent costs within sustainable limits.

3.37 As is well known, the education sector has extremely high recurrent/capital cost ratios. For most countries undergoing fiscal stabilization and economic restructuring, sector resource constraints are a major impediment to expanding access to education, largely because the operating cost of simply maintaining current enrollment capacity, not to speak of quality, has gradually eroded all domestic resources previously available for capital investment. For the same reason, foreign support for capital investment has been stagnating, except where donors have agreed to provide additional financing for recurrent costs. Where confined to capital investment, foreign aid has generated incremental recurrent costs that exceed domestic financing, resulting in underused or unmaintained facilities, or it has concentrated on the rehabilitation of facilities and equipment.

3.38 Regardless of the level of sector resources, imbalances between capital and recurrent expenditures compromise the efficiency of resource management and the effective mobilization of external financial commitments. The sustainability of past achievements is threatened, and future development is jeopardized. Under these circumstances, the cursory attention devoted in many education PERs to the appropriate balance between capital and recurrent expenditures is worrisome.

3.39 About two-thirds of those reports that emphasize trade-offs between capital and recurrent expenditures are concentrated in low SRM/high PE countries, where the burden of maintaining a high level of sector activity under global resource constraints tends to sharpen such trade-offs. When resources are limited but the need for them is growing, there is intense pressure to increase internal efficiency. Allocative inefficiencies--such as large capital expenditure programs (for example, for school construction in response to growing numbers of school entrants) with insufficient allocations for operations and maintenance--become more costly. Examples of good practice in this context are the Malawi, Rwanda, and Haiti reports; only Malawi and Rwanda apply the concept of recurrent/capital cost ratios (see box III.4).

3.40 Personnel versus nonpersonnel expenditures. Two-thirds of the reports (again concentrated in countries with a low level of sector resource mobilization, but a high sector output) express concern about the distribution of personnel and nonpersonnel expenditures in the recurrent budget. All of these reports mention insufficient spending on educational materials and supplies as an issue affecting the quality of education, but only half provide actual figures. The usefulness of this information for comparative purposes has already been noted (para. 3.28). Fifteen reports mention insufficient spending on maintenance of education facilities (4 with underlying data).

3.41 Teachers' salaries. Concern about teachers' salaries is highest in countries with the opposite set of indicators: a high ratio of education spending to GDP but poor output. This combination indicates inefficient resource use, and the largest component of education spending is wages. It is, however, extremely difficult and probably not useful to generalize

further about the treatment of sectoral versus government-wide wage structures in PERs. The salaries of primary teachers vary greatly as do the requirements, such as number of teaching hours and students per teacher. Many reports use available data to estimate either a time trend of real income for teachers, or a static or dynamic measure of income to per capita GNP.

3.42 Although personnel costs generally absorb too much of the recurrent budget, 10 of the 15 reports that explicitly refer to teachers' salaries recommend increasing them. Only eight reports cite actual figures for teachers' salaries.

3.43 Links between staffing and remuneration issues and the macroeconomic perspective are weak or nonexistent in most reports. There are a few exceptions. The following countries recommend policies that would raise salaries without increasing spending in the face of macroeconomic constraints: Bolivia and Haiti, by eliminating ghost employees and redundant positions; Ghana, by raising student/teacher ratios; and Lesotho, by implementing a wide range of cost-efficient measures at the university level. Otherwise, 5 of the 10 reports that recommend higher salaries for teachers make no comment about the feasibility of the proposal given the overall budget situation. Moreover, two of these (Costa Rica and Cameroon) also contain global recommendations about tight control of public sector wages as a means of reducing recurrent expenditures.

3.44 Few reports analyze changes in teachers' wages in the context of the civil service wage and employment structure. One exception is the Kenya PER, which states that because 40 percent of Kenya's civil service are teachers, the proposed elimination of the government's guarantee of employment for all university and teacher training graduates will not have a sector-neutral impact (see box III.1). It will have a disproportionately large (and positive) effect on the skilled-labor-intensive education sector, raising the student/teacher ratio above its present level and facilitating the transfer of resources from wages to materials expenditures.

3.45 There is tremendous variation in the coverage of economic forces and policy choices that affect education. A particularly critical area is wage and incomes policy. Adjustments to teachers' salaries relative to those of other civil servants must be addressed with regard to the macroeconomic constraints. Likewise, the consequences of adjustments in the civil service wage structure must be analyzed at the sectoral level. Analysis of budget items providing information on macro/sector links and assessment of outcomes for proposed reforms vary greatly among reports, often reflecting data availability and budgetary transparency. All of these areas need to be strengthened. The first best solution is to allocate Bank resources to ex ante sector work that could provide the data rather than to PERs that are forced to finesse this critical link.

Box III.4: Balancing Investment and Recurrent Spending: Recurrent/Capital Cost Ratios in Malawi and Rwanda

Throughout the developing world the productivity of investment programs has been jeopardized by the failure of governments to provide adequately for their operation and maintenance over time. "R" coefficients, equal to the ratio of incremental recurrent expenditures required by investment expenditures to total investment expenditures, can be a useful tool in predicting recurrent cost needs and evaluating the adequacy of recurrent expenditures historically.

The Rwanda PER estimates "r" coefficients for education projects in order to predict recurrent costs of the planned investment in various levels of education. The following conclusions emerge: (i) the primary education "r" coefficient compares favorably with those for similar countries;[a/] (ii) when recurrent costs are estimated in the requests, they are noticeably underestimated; and (iii) the future demand on budgetary resources by each level of education will far exceed resources, as well as the financial capacity of the sector.

Malawian authorities estimated "r" coefficients for education subsectors, based on projected recurrent costs of individual investment projects:

Primary schools	0.18	Teachers' Training College	0.06
Secondary schools	0.13	Distance Education	0.06

The weighted average of the coefficients (0.12) is much greater than the sector's "r" coefficient derived from actual spending during the 1983/84 to 1987/88 period (0.03). The discrepancy between projected and actual "r" coefficients indicates acute underfunding of recurrent costs necessary to service education sector investments (4 MK million spent versus 15 MK million required).

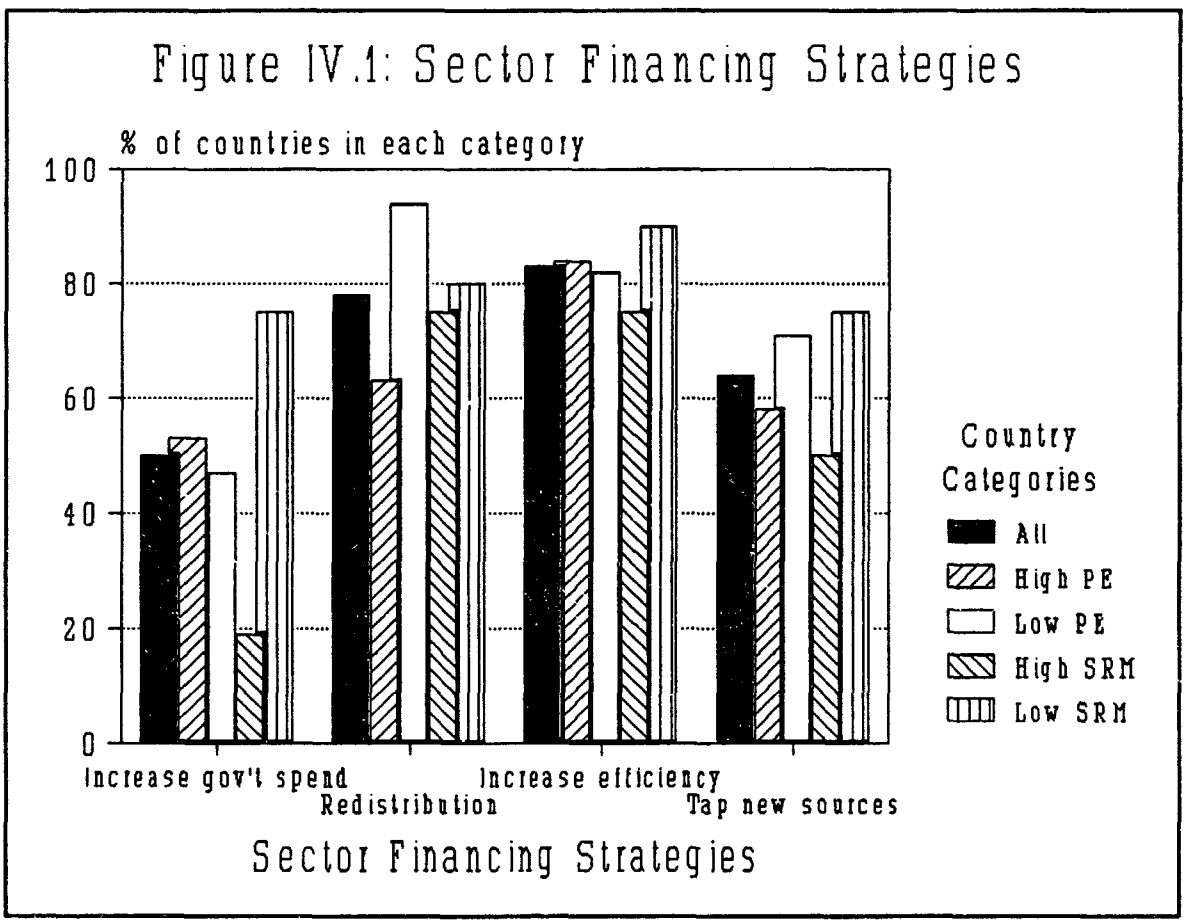
The magnitude of recurrent costs associated with projects tends to differ greatly across sectors as well as subsectors. Nevertheless, "r" coefficients can provide essential information on the recurrent cost implications of proposed investment spending.

[a/] Education sector "r" coefficients for a restricted sample of developing countries are reported in Peter Heller, "The Underfinancing of Recurrent Development Costs," in Finance and Development, March 1979.

Sources: "Malawi: Public Expenditure Review," Report No. 7281-MAI (February 10, 1989); and "Rwanda: Public Expenditure Program: An Instrument of Economic Strategy," Report No. 7717-RW (October 19, 1989).

IV. SECTOR FINANCING STRATEGIES

4.01 This section reviews the explicit and implicit sector financing strategies in education PERs. The inherent logic of these strategies is assessed through comparative analysis on the basis of the country typology, taking into account the macro and sector situation. Macro and sector diagnoses and strategies are, by necessity, highly synthesized. The macroeconomic situation--growth in general and public finance in particular--is diagnosed as improving, stable, or deteriorating (see figure II.1). Sector financing diagnoses and strategies relate to the overall allocation of government resources to education, the distribution of these resources among subsectors, and the efficiency of sector resource management. All the outcomes of this comparative analysis, selectively reported in this chapter, are included in annex IV. Sector strategies by country typology are presented in figure IV.1.



A. Overall Sector Financing

4.02 Eighteen countries are advised to increase government spending on education. In all but three reports, the sector is explicitly diagnosed as underfinanced. In nine reports,

the recommendation relates to the amount of the government budget allocated to the sector; only the Turkey report specifies from where the reallocation is to come. In four cases, the recommendation is for an increase in sector expenditures relative to GNP, thus implicitly safeguarding the desired outcome against deterioration in the efficiency of overall public resource mobilization. In the remaining five cases, the report simply advocates an increase in real expenditures on education, and the outcome in terms of the intersectoral allocation of public resources remains undetermined.

4.03 In eight of these eighteen countries, the economic situation is described as improving, hence facilitating the implementation of the recommendation; the economy is considered stable in another five countries. The Cameroon, Lesotho, Malawi, Nigeria, and Peru reports advocate increasing public spending on education even though the country is facing difficult times. In Peru, the increase is considered essential "for social and political reasons" for the attainment of other development goals, and the report states clearly which sectors should be targeted for reallocations. The Nigeria report finds that the quality and equity of education and the condition of the physical plant have deteriorated so much that increased public spending on education is essential in spite of resource constraints. In all 18 countries, new sources of financing or cost recovery measures are recommended.

4.04 When grouped by the country typology (see table IV.1), 15 of the 18 countries for which increased government spending on education is recommended indeed have a low rate of sector resource mobilization, representing three-fourths of all countries in that category. For the remaining five low SRM countries, PERs recommend maintaining the relative level of government spending.

Table IV.1: Sector Financing Strategies: Public Resource Allocation
(Percentage of reports in each category of countries)

Country Category	Increase Allocation	Maintain Status Quo/ No Recommendation
Low SRM (20)	75	25
High SRM (16)	19	81
Low PE (17)	47	53
High PE (19)	53	47
Total (36)	50	50

Note: Parantheses indicate the number of reports in each category.

4.05 In six of the low SRM countries for which increased government spending is advocated (Cameroon, Guinea, Malawi, Mozambique, Nigeria, and Turkey), sector resources are constrained by a relatively low budget allocation.[1/] In another three countries (Guatemala, Colombia, Peru), public resource allocation to the sector is high, and the constraint lies in the low level of public resource mobilization. In the remaining countries (Bolivia, Haiti, Mexico, Pakistan, Bangladesh, Sierra Leone), both factors combined depress the sector resource situation.

4.06 The pattern of PER recommendations for increased government spending on education appears to be unrelated to the primary enrollment rate. Positive recommendations are made for 53 percent of the high PE and for 47 percent of the low PE countries. The highest proportion of positive recommendations is recorded for the low SRM/low PE subcategory (86 percent), followed by the low SRM/high PE group (69 percent). In countries where public resources for education are relatively low and the primary enrollment rate is high, sustainability of the sector activity and equity in the distribution of its cost burden may require a higher level of government financing.

4.07 None of the reports recommends a reduction in the level of government spending on education, not even for high SRM countries. Thirteen of the sixteen countries in this category recommend maintaining that level, or they do not commit themselves on this particular issue. In only three high SRM cases (Costa Rica, Ghana, Lesotho) is an increase in government spending recommended. Lesotho's SRM position reflects a high level of public resource mobilization (22 percent) rather than of sector resource allocation (16 percent), whereas Ghana's situation is the opposite (15 percent and 24 percent respectively). While increased spending seems feasible in Lesotho, it may be a response to high demand for secondary education since the country already has universal primary education. In Ghana, increased spending on education is understandable in view of the sector's low primary coverage, but it may not be sustainable.

4.08 Most of the countries that advocate no change in education expenditures have a high level of sector resource mobilization (13 of the 16 reports in the high SRM category compared with 5 of 20 reports in the low SRM category). A tendency to maintain the status quo thus prevails when sector resources are relatively abundant. Even though this tendency is natural from a sector perspective, it may merit closer scrutiny in some cases.

4.09 The PER for Côte d'Ivoire acknowledges that education's share of the government's recurrent budget is among the highest in the world (42 percent in 1985), but it fails to formulate a spending recommendation even though the economic and public finance situations are described as deteriorating. The report does advocate various cost-saving and recovery measures, all of which will benefit primary education, which has a low enrollment rate, rather than the general budget. Zambia, on the other hand, has a rather low budget allocation to the sector (8.3 percent) and an economy that apparently is

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[1/]Nigeria, though highly indebted, is not strictly speaking a low SRM country if education financing by the states is added to the federal sector budget.

improving, yet the PER does not explicitly favor increased government spending on education.

B. The Intrasectoral Allocation of Government Resources

4.10 Most reports recommend changes in the intrasectoral allocation of government expenditures--usually more money for primary education. Reports advocate either direct redistribution or cost recovery measures at the postprimary (mainly postsecondary) level. Restrictions on the growth of postprimary, principally university, enrollments are recommended in 11 reports. Cost recovery is to be achieved by introducing or raising user fees (20 cases) and, to a lesser extent, by reducing subsidies (13 cases). Five reports explicitly indicate that the proceeds of the cost recovery measures should be reallocated to primary education. In most other cases, one has to assume that these proceeds remain in the subsector, hence that redistribution is indirect.

4.11 Consistent with the desire to alter the distribution of public expenditures in favor of primary education, none of the reports advocates cost recovery at that level. Many reports, however, recommend that additional sources of primary education financing be identified and exploited. Expansion of the private school system (proprietary or sponsored by a nongovernmental organization) is encouraged in 17 reports, and contributions solicited from local communities and parent associations, mainly for primary school construction and maintenance, are proposed in 6 reports. The Nigeria report advocates the imposition of a development levy on households for the financing of primary education.

4.12 Although not directly related to the intrasectoral distribution of the education budget, such measures have an indirect redistributive effect on it. Whether this effect is consistent with the underlying intrasectoral reallocation philosophy remains, in most cases, an unanswered question. This omission may be of particular concern where the recommended measures amount to de facto primary cost recovery, such as direct contributions from communities and parents.

4.13 Recommendations usually are made after the equity of the distribution of sector resources has been assessed. In seven cases, however, cost recovery or reallocation measures are advocated without a clear prior assessment of the situation. PER emphasis on intrasectoral reallocation strategies is understandably stronger in low PE countries than in high PE countries, but it does not seem to bear much relationship to the sector's resource situation. Quite consistently, however, high SRM/low PE countries favor reallocation. The imbalance between the supply of public resources to the sector and the primary enrollment rate calls for increased attention to intrasectoral allocations, both on equity and efficiency grounds.

C. Sector Resource Management

4.14 All together 30 PERs make concrete recommendations about sector resource management. Characteristicaily, four of six PERs that do not take a stand on sector resource management issues cover high SRM countries, two of which also have a relatively low primary enrollment rate (Central African Republic, Costa Rica). Recommended

strategies entail direct cost-saving measures (for example, less costly teacher training, lower teacher qualification standards, a shift of teachers from higher to lower education levels, lower school construction costs) or indirect savings through efficiency improvements (for example, more intensive use of teachers and facilities and higher student promotion rates).

4.15 Few of the reports acknowledge that increased efficiency of educational processes usually requires prior investment in quality improvements, the incremental costs of which initially outweigh the resulting savings. Furthermore, it is often unclear from the recommended efficiency measures whether realized savings are to remain within the subsector or to be reallocated to another subsector. Consequently, the ultimate effect of such measures on the intrasectoral distribution of the education budget remains undetermined, even though the equity of this distribution is a stated area of concern.

D. Overall Assessment

4.16 With a few exceptions, the financing strategies emerging from PERs are rooted in an explicit, though sometimes equivocal, sector diagnosis. As far as the overall level of government spending on education is concerned, recommendations are not always consistent with the global economic assessment.

4.17 Many PERs fail to follow up on the sector diagnosis with concrete policy options. This "non-commitment" phenomenon is concentrated in countries that spend quite a lot on education. Countries with a comparatively low level of sector resource mobilization favor strategies to reallocate resources and to improve the efficiency of resource management.

4.18 The logic of this difference between high and low SRM countries is evident: the more severe the sector resource constraints, the greater the need to find ways to do more with available resources and to tap new sources of financing (including cost recovery). But the implicit corollary--namely that efficiency and equity of resource use deserve less attention in countries with more generously endowed education sectors--is less evident. There seems to be an assumption that the share of education in the total budget is more or less fixed, or at least is much more rigid than is the structure of the sector budget. Without much justification, the focus is on intrasectoral rather than intersectoral reallocations of resources.

4.19 The recommendations in PERs for increased resource allocations to the education sector or to a subsector are incomplete without a clear and realistic analysis of the source of these resources. If intrasectoral or intersectoral reallocations are proposed, the PER should justify the transfer of resources within or to the education sector relative to other sectors or subsectors.

4.20 Crosscountry analysis confirms the need for a country typology linking sector financing and output criteria. The crude typology adopted for this review proved useful in identifying exceptions and borderline cases that deserve closer scrutiny. Two subsidiary conclusions emerge from the use of this typology in the present context:

(a) Sector financing issues and related strategies are relatively obvious in countries where the level of public spending on education and the sector output are both high or both low. Issues and strategies are more complex when there is an imbalance between the two criteria (for example, a high level of government funding and low sector output). In these cases, the interrelated issues of quality, efficiency, and equity become predominant.

(b) When assessing the adequacy of the government's financial commitment to education, it is useful to distinguish between the effect emanating from the relative size of the public budget and the proportional allocation of these resources to the sector. Where the first factor is the overriding constraint on the supply of resources, the feasibility and sustainability of the views held in a number of PERs seem questionable, at least in the absence of a more integrated treatment within the macroeconomic framework.

V. METHODOLOGY

5.01 The education sector is widely recognized as critical for development. It also consumes a large share of government recurrent expenditures. Therefore, any unevenness of analysis or imbalance in recommended strategies among sectors in PERs is a cause for concern. This section reviews the comprehensiveness of sector coverage, the information and methodology incorporated into the sector analysis, and institutional issues.

A. Sector Coverage

5.02 Prior sector experience. All but 10 reports (all of them multisector) refer specifically to the participation of an education sector specialist on the PER mission(s). Only 56 percent of the reports state that they are building upon Bank experience in the country; and most of these refer to previous Bank studies or other public expenditure or education sector studies. The other reports do not place themselves explicitly in the context of prior CESW by the Bank.

5.03 Comprehensiveness of sector coverage. All of the single-sector and two-thirds of the multisector reports cover the entire formal education system, although the emphasis varies. For example, the Bolivia report concentrates on the primary level, Tunisia report on the primary and secondary levels, and the Colombia report on primary and higher education.[1/] Vocational and technical training was mentioned in two-thirds of the reports, including all but one of the single-sector reviews.

5.04 Data. All reports except that of the Central African Republic use government data sources, and 28 use Bank-generated data. The Bank data are commonly presented as an addendum or corrective to incomplete or inexact country-generated statistics. In some cases (for example, Niger), Bank spending estimates differ from government budget estimates because of different methods of measuring costs. In other cases, exact estimates are impossible because of ambiguities. In Mozambique, many foreign-financed education projects are not in the budget, and in Pakistan, the extent of federal and provincial cost-sharing is unclear. Several reports point to inconsistencies in government data. For example, the statistics from one ministry contradict those of another, or subsector expenditures do not add up to the sector total. Half of the reports refer to necessary data (particularly on the wage structure and on unit costs per student) that are not available.

5.05 Single-sector versus multisector reports. The 8 single-sector and 28 multisector reports in the sample are only partially comparable because of their different emphases. First, the single-sector reports include more complete data on education (enrollment and repeater rates, unit cost data, breakdowns of information by level of education, and so on). They also provide better analysis of data--which data are inconsistent or missing, and more detailed information on how estimates are derived. Second, they analyze sector issues and priorities in more detail (specific inefficiencies by level of education, intrasectoral

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[1/] Reports that focused exclusively on a single level were excluded from the review.

allocations and misallocations). Third, they more frequently include information on the government's strategy for the sector. When a sector financing model is used, the trade-offs often reflect the government's explicit priorities. One problem area that is highlighted much more consistently in single-sector reports is the insufficiency of funds allocated to materials and maintenance. This imbalance exemplifies the type of budgetary underfunding or misallocation that is often not apparent from the macro perspective. Fourth, the single-sector reports cite a wider variety of objectives for the education sector. Fifth, they often discuss the social consequences of education reforms. Finally, single-sector reports are more often developed within a long-term (to year 2000) framework. Yet the detailed sector work in single-sector reports is often presented in a macroeconomic near-vacuum.

5.06 Multisector PERs treat more thoroughly than do single-sector PERs the macroeconomic strategy, the effect of education reforms on the public budget, intersectoral trade-offs, dangers to the sustainability of reforms, and questions of political and institutional feasibility. More frequently than single-sector PERs, they use Bank-generated data rather than government data and government planning documents rather than actual expenditures. Because the PER is often a tool for the projection or analysis of a medium-term expenditure program, the multisector reports focus on reforms that can be implemented within three to five years. Multisector reports also tend to refer to underlying sector studies or other Bank experience in the country. Single-sector reports rarely do because they usually precede any non-project involvement of the Bank in the sector, and they reflect either the initial sector work or an update after a lapse of several years.

5.07 In spite of the commonalities described earlier, there is great diversity of coverage among PERs. Although the reports serve different purposes at different stages of the Bank-country dialogue, greater standardization of coverage, format, data, and data sources is advised.

B. Coverage of Education Financing

5.08 A major problem for the analyst is not knowing what portion of total education financing is represented by the public budget allocated to the relevant ministry. Three specific questions need to be answered:

a) Are there significant nongovernment sources of education financing?

b) Are there significant public sources of education financing that do not appear in the central government's budget?

c) Are there significant central government sources of education funding that fall outside the line ministry?

5.09 Nongovernment sources of education financing. Reports cite two types of nongovernment funding of education: private funding by beneficiaries (or their families), businesses, NGOs, religious organizations, or other groups; and private or public financing by foreign countries. The role of the private sector in the financing of education is described in 60 percent of the countries reviewed. Twenty reports describe private schools,

most commonly at the primary and secondary levels. Although most private schools are operated for profit, seven reports mention that nonprofit religious organizations provide education.

5.10 Another form of private sector education funding is user fees, mentioned by nearly half the reports. Eight reports describe school fees levied for tertiary education. School fees at lower levels of education are mentioned primarily for East Africa. Kenya and the Philippines charge fees at the secondary level, Nigeria and Zambia at the primary and secondary levels, Rwanda and Tanzania at the primary level only, and Zimbabwe for primary and vocational schools. Lesotho has user fees for primary, secondary, and vocational education. Ghana charges for textbooks and school materials at all levels, but these fees are symbolic rather than real because they recover only about 1 percent of actual costs for materials. African parents in particular contribute to their children's education by providing school materials such as books and uniforms or by helping to build, maintain, or operate school facilities.

5.11 A great deal of confusion about the role and advisability of user fees exists. Much of the confusion is the result of a partial equilibrium analysis that reflects a lack of adequate data. Information about the ability or willingness of the administrative apparatus to collect fees is often scarce. Almost all reports that discuss user fees mention the equity and access implications--both positive and negative--but they do not incorporate the sector expert's intuitive assessments into a general equilibrium analysis of the budgetary trade-off between user fees and scholarships, or the effect of cost recovery on the demand for education, for example. Although exceptions exist (see below under social and equity issues), the treatment of user fees, while necessarily situation specific, leaves too much room for subjective interpretations based upon largely insufficient data.

5.12 A final nongovernment source of financing is foreign aid. Seventeen reports describe foreign financing for education projects. These reports are spread across all country groupings and report categories. Some reports cover foreign financing in detail, others subsume it into central government spending. In general, donor assistance focuses on the capital budget and provides little support for recurrent expenditures, except when they are hidden in the investment program, even of donor-financed capital projects.

5.13 The tremendous variation in the treatment of foreign aid to education is a result of the different ways of treating it in the government budget. The Mozambique report notes that the country's investment budget includes considerable recurrent spending that is foreign financed. Recurrent expenditures are capitalized to attract donor support, which is usually not offered for explicitly recurrent items. But the report makes no attempt to quantify or track these hidden recurrent costs or to calculate the degree to which the capital and recurrent budgets are skewed by outside funding.

5.14 No expenditure items are cited for the foreign financing of education in Haiti, where it provides 30 percent of total sectoral spending; in Bangladesh, where 23 percent of primary, 6 percent of secondary, 54 percent of vocational, and 15 percent of university spending is provided by foreign donors; or Rwanda, where 1.6 percent of the recurrent budget is foreign financed. No figures are given on foreign aid to education in Honduras,

Mozambique, Niger, and Burkina Faso, although the reports mention that it is significant. Little coherent analysis of this important item is possible unless all foreign inputs into the capital and recurrent budgets are itemized.

5.15 Local government financing of education. One-third of the reports mention local government financing of education. Here again, the large disparities in the treatment of the role of the local government in education are because of administrative or budgetary opacity. It is not always clear whether the local authorities are distinct revenue-generating and decisionmaking bodies with regard to education, or whether they are merely recipients and administrators of central government pass-throughs. The role of local administrations should be clarified.

5.16 Other central government financing of education. Twenty percent of all reports cite extrabudgetary spending as a result of balanced budget requirements, off-budget earmarked funds, special foreign currency accounts, and so on. Eight reports briefly describe the role of government ministries other than the Ministry of Education in sector financing. Vocational training, building construction, and maintenance are functions that often fall outside the purview of the Ministry of Education. In addition to budgetary contributions from specific ministries, education may be funded from other public financing sources (see box V.1). Too narrow a focus in the sector financing analysis may lead to underestimation of the public resources allocated to the sector and to distortions in the assessment of how they are distributed.

5.17 In general, vocational training programs are small, and the exclusion of figures for them in a functional education budget, while distorting, is not critical. The same cannot be said for operations and maintenance costs. In many countries, it is difficult to determine what percentage of expenditures by the public works or other relevant ministry is functionally linked to education, and these amounts can be substantial. In Guatemala, most capital investment in education is financed by the Ministry of Public Works; in Peru, over half of all school construction is funded by the National Development Corporation.

5.18 In only a few countries does a functional budget appear to be readily available or calculable, so some reports have gone to great lengths to approximate these costs.[2/] Such efforts are necessary because the relegation of these largely capital costs to the budgets of other ministries clearly distorts the relationship between capital and recurrent financing needs in the sector. Increased attention to the development of functional, rather than administrative, budgetary categories is suggested.

[2/]Tanzania's PER (1988), for example, lists recurrent and development budgetary expenditures by administrative categories (central government ministries) and by crossministerial end-use categories (general administration, public safety, sanitation, education, and so on). These categories are only partially comparable, and the creation of a workable functional budget depends upon detailed knowledge of budgetary categories.

Box V.1: The Education Budget in Mali

Mali's public budget has three main components: the national budget, the regional budgets, and special accounts (budgets annexes). The national budget, in turn, has three categories: ministries; "general outlays" (charges communes), essentially subsidies and transfers; and equipment. Capital expenditures figure mainly under the equipment rubric, but they are included in some of the ministerial budgets. The equipment budget also includes a substantial portion of recurrent expenditures.

Education expenditures, defined as those related to the formal education system managed by the Ministry of Education, are scattered in several places. It takes careful detective work to determine the true size and composition of the education sector budget. More than 80 percent of primary education is financed through the regional budgets. The "charges communes" rubric includes subsidies to private schools, as well as local and foreign transportation costs incurred by students, teachers, and Ministry of Education officials. The following table shows how the sector's recurrent budget is pieced together.

1988 Public Recurrent Expenditure on Education (FCFA mill.)

	Budgetary Source:			
Subsector	Ministry of Education (%)	Charges Communes	Regional Budgets	Total (%)
Primary Ed.	415 (3.2)	253	3,154	3,822 (21.6)
Secondary Ed.	8,347 (64.0)	649	--	8,996 (51.0)
Teacher Training	853 (6.5)	22	--	875 (5.0)
Higher Ed.	2,508 (19.3)	539	--	3,047 (17.2)
Administration	910 (7.0)	--	3	913 (5.2)
Total	13,033 (100.0)	1,463	3,157	17,653 (100.0)
Percentage of Total Recurrent Budget	(19.4)			(26.2)

This example shows how seriously the government's financial commitment to education may be underestimated if the analysis is limited to the budget of the line ministry. In Mali, the line ministry represents 19 percent of total public recurrent expenditure, whereas the comprehensive sector budget accounts for 26 percent. More important, the sector budget shows a more rational intrasectoral distribution of resources, even if heavily skewed against primary education.

Source: Serge Cuenin, "Analyse des Dépenses Budgétaires Relatives à l'Education", IREDU, September 1989 (background paper for MALI Education Sector Consolidation Project. IDA Cr. 2054-MLI).

C. Education Finance Models

5.19 Use of simulation models in the financial analysis of the sector has had beneficial results in terms of coherence, comprehensiveness, and interpretability of outcomes.[3/] Education finance models differ in structure and in sophistication. They all provide an accounting framework linking student flows, and sometimes teacher flows, to the various components of unit costs (such as teachers' salaries, administration, materials and supplies, maintenance). They then project sector financing requirements according to various assumptions about enrollment rates, efficiency improvements, cost-recovery measures, or other reform targets. The "resource availability" version of the model is driven by the budget constraint and solved for maximum feasible growth of student enrollments, and the "resource requirement" version is driven by student enrollments and solved for the required minimum sector budget.

5.20 Twelve reports use an education financing simulation model. Characteristically, use of this analytical tool appears to be frequent in single-sector reports (five of the eight reviewed), and infrequent in multisector PERs (seven of twenty-eight). It is also more frequent for countries with a low level of sector resources (45 percent of the reports in that category) than for high SRM countries (19 percent). Five reports rely on the resource availability version of the model, another five on the resource requirement version. The remaining two reports use both versions, projecting a "sector financing gap" that results from the difference between sector priorities and available financing (the budget constraint). Most of the reports present alternative scenarios that compare the costs of continuing current enrollment and internal efficiency trends with the cost and allocative implications of recommended policy measures.

5.21 In the PER context, education financing models are a useful tool for strengthening the policy dialogue between the macroeconomist and the sector specialist, and ultimately between them and the government. More systematic use of this tool is greatly encouraged. The development of education financing models requires considerable initial investment in time and resources. Therefore, they should be undertaken as part of prior sector work.

D. Structural and Institutional Issues

5.22 Planned versus actual expenditures. Twenty-five reports include actual education expenditures as well as government planning documents. Nine reports cover only actual spending, and two reports (Mozambique and Senegal) consider only planned expenditures. Of the reports that compare planned and actual spending, half of them point to specific discrepancies--usually shortfalls.

5.23 The most complete treatment of this issue is in the Colombia PER, which provides a useful picture of a shortfall in actual expenditures on education directly

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[3/]See, for example, Manuel Zymelman, Education Finance Simulation Model, World Bank, 1987.

attributable to the national budget (see box V.2). The Lesotho report also analyzes the gap between planned and actual investments in education and finds several causes, most of which are institutional/procedural: overambitious targets, delays in donor funding, and weaknesses in project management. Other reports (Honduras's, for example) note that although overall expenditures have been below target, capital expenditures have exceeded budget levels. Inflation, cost overruns, and inaccurate forecasting are often cited for the difference between target and actual spending.

5.24 The budget process. All but six of the twenty-eight multisector reports discuss the budget process, and those that do not often refer to other country documents that provide such analysis. Only two of the eight single-sector reports discuss the budget process, and then only for the sector. The treatment of the budget process and its relevance to the cost and financing review varies tremendously. Some times the sector's budget is developed by the regions and then aggregated, and at other times the entire government budget is centrally determined on an incremental basis--a process that prevents significant intrasectoral or intersectoral adjustments. Box V.3 presents a brief sketch of good practice in public expenditure planning in Botswana.

5.25 Some of the reports point to budget rigidities that make optimum allocations impossible. In Colombia, for example, an old system of earmarked taxes means that resources cannot be transferred among budgetary categories according to new priorities. In several African countries, all revenues go directly to the Treasury, so the Ministry of Education has little incentive to collect mandated school fees. In other countries, an apparently deliberate lack of transparency in budgeting facilitates a lack of accountability for actual outlays and for results.

5.26 The most common budgetary problem is poor coordination of the capital and recurrent budgets, resulting often in too much capital spending (on construction) relative to expenditures on supplies and maintenance. This imbalance can have particularly disastrous effects on the social sectors, where spending is overwhelmingly recurrent. About half the reports suggest budgetary reforms (setting expenditure priorities that integrate the budget with medium-term planning) to facilitate education sector reforms. In four countries (Ghana, Guinea, Kenya, and Madagascar), major budget reforms are under way. The principal objectives of Madagascar's 1988 budget reform are to increase the efficiency of allocations; to integrate the Public Investment Program and the recurrent budget in a consolidated process; to improve budget presentation and coverage; and to strengthen and streamline expenditure monitoring and execution procedures in order to improve control and accountability.

5.27 Social and equity issues. Sixty percent of reports discuss the social implications of proposed reforms (figure V.1). The discussion almost always focuses on improving equity and access at the primary level. The percentage of reports that recommend improvements in equity or access is lowest in countries where the sector is well funded (that is, high SRM countries).

BOX V.2: The Budget Process in Colombia

In Colombia, the central government has traditionally had little power and few legal or institutional mechanisms with which to manage public expenditure. The 1989 Colombia PER focuses on the budgetary process--why it does not work well and how to gain control of it. After addressing the manageability of public expenditure and the earmarking of revenues, it discusses the three sectors (power, health, and education) that it finds require the most attention. It includes these sectors not only because they absorb large shares of government spending, but also because the budget process itself has impeded the implementation of the government's stated goals for the sector.

The annual budget process is criticized as a short-term exercise with little relationship to long-term planning. Numerous rigidities--a constitutional requirement that the budget not exceed the previous year's budget by more than 10 percent, a requirement that the budget be formally balanced, and the extensive system of earmarked taxes--have contributed to the budget's irrelevance as an allocation and planning tool. As a result, planned income and expenditures often have little relationship to actual financing and spending.

From 1986 to 1988, total education expenditures (both capital and recurrent) not only failed to meet the planned targets, but actually fell in real terms. Although investment in primary education doubled over the period, it fell far short of the planned level, as did overall spending on primary education. On the recurrent side, nonsalary spending fell 45 percent in real terms in spite of government recognition of the importance of nonsalary education spending. Since 91 percent of education financing comes from the central government (with 4 percent from external credits and 5 percent from all other sources), the large shortfall in education financing is directly attributable to central government financing. (In 1988, education accounted for 19.1 percent of the central government budget rather than the planned 24.6 percent.)

Although problems of fiscal planning and management remain, steps have been taken to rationalize the process. The report reviews these and suggests additional procedural and institutional measures. It also links a) macroeconomic and sectoral priorities with one another and with the institutional context, and b) the budget process and the actual fiscal outcome.

Source: "Colombia Public Expenditure Review," Report No. 7891-CO (green cover).

BOX V.3: Public Expenditure Planning in Botswana

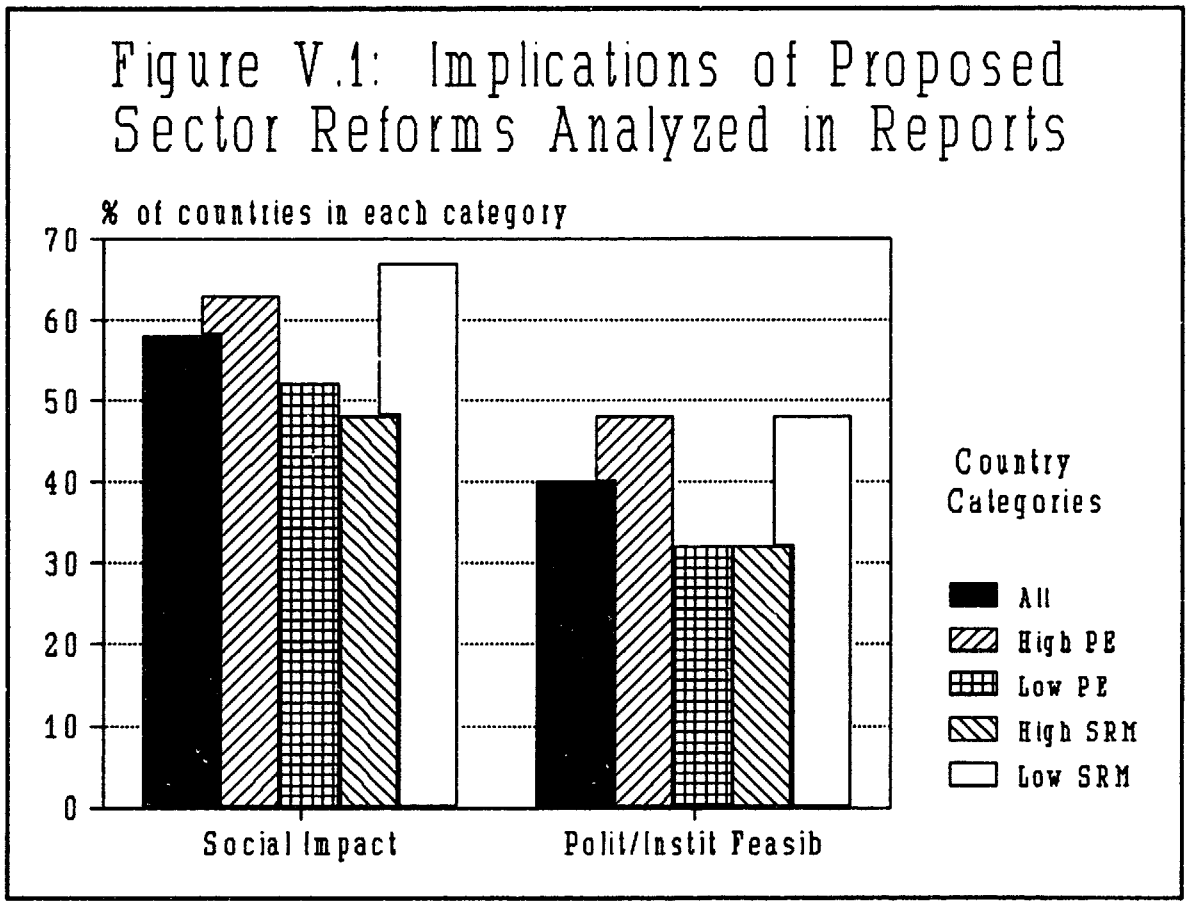
The analysis of Botswana's public expenditure plan in the 1986 PER is facilitated by a strong national accounts data base and the country's well-developed administrative apparatus. Preparation of the sixth National Development Plan (1986-91) began with the preparation of sector policy papers by each ministry. These documents presented the ministry's view on policy issues and on specific problems within its purview. The papers were discussed by the entire Cabinet of the government, and sectoral allocations of recurrent and development spending were made within the context of guidelines for overall expenditure growth.

Once the recurrent and capital expenditure ceilings were fixed, ministries were asked to prioritize objectives within the budget ceiling. Spending on low priority activities was maintained constant in real terms. Departments providing services to the public were allocated increased resources at least consistent with the rate of population growth (3.7 percent). High rates of spending growth were determined for several sectors including education, reflecting the government's stated commitment to basic education and to alleviating the economic constraint imposed by a lack of trained manpower. The recurrent cost implications of each project were spelled out, as were the recurrent cost implications of each ministry's investment program. Ceilings on capital expenditure limit only those projects with recurrent cost implications. Other self-liquidating capital expenditures were considered within the context of overall resource availability.

The Plan includes four budget scenarios, a base case and three less optimistic alternatives that are designed to test whether policy actions, in particular new revenue measures, would be needed under less favorable conditions. The Bank mission reviewed the scenarios and found that several of the assumptions of the base case had become less plausible over time. The Bank presented a fifth scenario that is more optimistic than the country's most favorable (base) scenario. The report, while commenting favorably on the budget preparation and review process, makes several recommendations for improvement: the recurrent cost implications of existing as well as proposed investments should be evaluated and justified; foreign assistance should be itemized by project; and financing for parastatals (even nongovernmental funding) should be indicated separately.

5.28 Several reports recommend increased cost recovery but do no mention the equity implications. Much attention is paid, however, to a more equitable intrasectoral distribution of resources through greater cost recovery (user fees), proposed in three-quarters of all reports. The recommendations for cost recovery at the primary level vary: some reports support it, while others suggest its elimination. In Haiti, parental

contributions are a major burden on household income, and costs rise throughout the primary cycle. The Kenya and Nigeria reports argue that high fees for primary users have lowered enrollment among the poor. But the Zambia report advocates the introduction of user fees. It argues that, given a spending constraint, modest charges are less damaging than are deteriorating services. However, if the user fees are not perceived as the lesser of two evils, parents may simply attribute to schooling an unduly high opportunity cost. Tanzania's public expenditure review reports that primary enrollments are falling because parents are questioning the value of education.



5.29 In general, the reports recommend increased user fees at higher levels of education as the most equitable method of cost recovery. However, several reports note that user fees for secondary and higher education are inequitable if the few low-income students who reach higher education are not given scholarships. Specific population groups --particularly the rural poor and girls--have inadequate access to education. But figures for these groups are rarely included in the reports. Only the Pakistan report specifically recommends targeting girls. Several reports discuss regional imbalances and ethnic or language disadvantages (among the Indian population in Guatemala and Peru, for example).

The Peru report notes that the general inadequacy of the infrastructure disadvantages the rural population because books and supplies are either unavailable or expensive.

5.30 Political and institutional factors. About two-thirds of the reports refer to the political or institutional feasibility of reforms. In the others, there is little discussion of the threats to sector policies, even when they are obvious. Eleven reports mention interest groups opposed to certain reforms--local politicians, ethnic groups, urban populations--but they usually do not discuss the implications of their opposition in detail. Several reports describe the political sensitivity of cost recovery and the possible backlash from even those groups able to pay, while others note opposition to targeted subsidies designed to benefit disadvantaged groups. Some reports describe institutional threats--the high administrative cost of cost-recovery measures, the lack of local and parental commitment to reforms, poor planning and execution capabilities, and very often a complete lack of materials and operational support.

5.31 The Peru report discusses the political opposition to reform, but it does not develop a feasible alternative. Both the Bank and the country's development plan advocate more government spending for education. The Bank recommends raising the real spending per student to the level of the 1970s, but with a greater than concomitant increase in output from organizational and efficiency gains. However, the Bank recommends more recurrent spending, partly at the expense of capital investments, and in so doing disagrees with the country's general philosophy on development and with its education sector priorities. The government's investment plan calls for a large school-building program, the implementation of which would divert resources from the recurrent budget. Since the government has explicitly rejected the Bank's development strategy as "failing to respond to the immediate exigencies of Peru's...socio-political situation," and since "without a very substantial improvement in the organization and management of the educational system, none of the...proposals can be successfully implemented," the prospects for implementation, let alone for sustainability, are minimal.

5.32 The Nigeria review recommends cost shifting and cost recovery measures with little reference to institutional feasibility. The report projects recurrent and capital expenditures forward from 1985 to 1990. To do so, it divides spending between federal and state levels, uses population and enrollment projections to determine the number of students at each level, estimates cost-recovery revenues, determines a composite cost structure, and calculates an annual growth increment. For universities, a 10 percent fall in spending per student is factored into the estimate for the initial year because these institutions are relatively well funded and "are most likely to be able to absorb a cut." Cost recovery estimates are calculated on the basis of projected enrollments, and it is assumed that fees are subject to 100 percent collection, although the report does not indicate whether this level of collection presently exists. The report has made good use of the information available, but it does not address the feasibility or sustainability of the suggested reforms. It does not discuss the political power or institutional and revenue-collecting sophistication of the states versus the federal government, nor does it analyze the willingness of the federal university system to absorb funding cuts. The Nigeria and Peru reports discussed here are from 1985 and 1987 respectively. A clear learning curve is

evident in recent reports. Nevertheless, coverage of sustainability issues is sporadic at best and deserves much more attention.

E. Overall Assessment

5.33 The staff time and effort required to produce multivolume PERs are not justified by the results.[4/] PERs should be brief (no more than 100 pages) and useful information documents for negotiations between the Bank and the host country rather than all-inclusive reviews.[5/] Given this caveat, the education specialist must consider carefully what to include. The purpose of the PER, to analyze the public sector budget, should be clearly reflected in the sector review, which should outline the budgetary and institutional issues that link the sector to the macroeconomy.

5.34 Since it is beyond the purview of a multisector review to go into detail about issues and processes, an important first step is to create a comprehensive and functional (rather than administrative) budget that will bring together all education financing and expenditures, regardless of source. Such budgets will not only facilitate CESW, but also make crosscountry comparisons more useful. The sector specialist will be better able to conclude that funding for education at a specific level is too high or too low according not only to personal expertise, but also to homogeneous comparative statistics.

5.35 The true level of funding for education is extremely difficult to determine. Categories such as "Ministry of Education expenditure" or "local government expenditure" can present a misleading picture of the total level of resources. The Bank should suggest to governments that they move toward developing a comprehensive, multisource education budget, and it should offer technical assistance for so doing.

5.36 The need for detailed and analytical budgetary knowledge is not specific to education. The imbalance between capital and recurrent spending is probably the most sector-specific concern in the budget. Any evaluation of capital and recurrent costs is hampered by the fact that portions of these costs are often hidden in noneducation line items in the budget. A standard list of items (see para. 6.07) should be included in any expenditure review of the education sector so that there will be 1) an accurate correlation with the total expenditure picture and 2) a basis for functional crosscountry comparisons and judgments.

5.37 The success or failure of public expenditure recommendations often rests upon the Bank's understanding of the mechanics and politics of the budget process. Cost recovery measures were proposed in three-quarters of the reports, but the optimal level of cost recovery cannot be determined if the true costs are overstated or understated. Cost recovery measures in such circumstances need to be analyzed in a general, rather than

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[4/]PIRs and PERs from 1985 to 1987 required, on average, 19 staff/consultants and 101 staff weeks. De Melo (1988), Table 1, p. 3.

[5/]Ibid., p. 14.

partial equilibrium, framework. If not, they may be counterproductive in two ways. First, they may lead to declining enrollments as in Tanzania (see para. 5.28). Second, they may cause government revenues to decline as fewer students are enrolled to pay the fee. Additionally, there is little incentive for the Ministry of Education to alienate its constituents by carrying out cost recovery measures if, as is the case in many countries, the revenues are returned to the Treasury rather than to the Ministry. The budget and budget process need to be understood as institutional and political tools before feasible reforms are suggested.

5.38 Since PERs focus on public recurrent spending, most of which is wages, they need to emphasize the public sector wage structure. An adequate understanding of the salary structure in the wage-intensive education sector relative to other sectors is a crucial first step in determining whether specific policy proposals will have sector-neutral effects. Such a review is essential in any PER that makes specific recommendations for the treatment of public sector wages.

5.39 It is also important to specify who controls revenues and expenditures and how intersectoral and intrasectoral conflicts are to be resolved. The Ministry of Education probably has no administrative or political control over education resources assigned to outside agencies, or even over the reallocation of specific line items in its own budget. The feasibility and sustainability of intrasectoral resource reallocations (a reform recommended in three-quarters of the reports) depends greatly upon an understanding of institutional processes. Coordinated sector development is all but impossible when administrative responsibility is fragmented among several (often competing) ministries. Effective and sustainable reallocation of education sector resources may only be possible after policies that address budget processes and their inflexibility are in place.

VI. CONCLUSIONS AND RECOMMENDATIONS

6.01 The goal of a public expenditure review is to add to the Bank's understanding of how macro and sector priorities are determined and balanced over a given period of time and in accordance with explicit or implicit priorities. They are a useful vehicle for highlighting sector cost and financing issues and for analyzing them in the context of the entire economy. PERs have become a useful tool in the public expenditure reform process, but there is still a tendency to use them to fill in the gaps in sector knowledge. This process is an inefficient way to gather information and a less than optimal use of sector expertise.

6.02 Approaches and methodologies vary greatly, as does sector coverage, even by similar countries. The sector specialist will always need to rely on personal experience and intuitive judgment to some extent, but there is at present too much room for subjective interpretations, conclusions, and recommendations. These compromise the credibility of policy recommendations.

6.03 Too often the only connection between macroeconomic analysis and sector analysis is the budget constraint. The best PERs from the education sector perspective develop other macro/sector relationships. CESW and reviews of the budget and budget process precede the public expenditure review, which includes education and the social sectors in accordance with an explicit ranking of priorities. Throughout the review, the effects of changes in financing or policy at one level are taken into account when evaluating reforms at another level.

6.04 Because the budget and budget process are often deliberately opaque, the evaluation of institutional and political priorities and constraints needs to be strengthened in order to ensure the sustainability of policy reforms. Greater realism in the assessment of the political and social feasibility of proposed sector strategies is necessary. Also needed is better assessment of the institutional and managerial abilities of the agencies that will be called upon to administer reforms. The political and managerial caveats apply particularly to the intrasectoral reallocation of resources and responsibilities.

6.05 The chapter or section in a PER on education should provide an accurate picture of how funds to the sector are allocated and disbursed. Providing this picture entails an evaluation of the expenditure data and the expenditure process. In particular:

a) If the budget process and the relationship of the budget to actual spending are not transparent, then a budget process review may be a prerequisite for an expenditure review.

b) The PER cannot be substituted for CESW. If the necessary data are not available, ex ante sector work is a prerequisite for any PER that attempts to make and evaluate macro and sector links.

c) For in-depth analysis of sector cost and financing issues, single-sector PERs, or possibly social sector PERs, are more appropriate than multisector reviews.

6.06 Extensive detail is not a substitute for a well-focused analytic discussion of the major issues, priorities, and policies of the sector and their relationship--economic, political, and institutional--to the country's development program. Foremost, there should be a clear rationale for the inclusion of education in the report and an explanation of the relationship of the sector to the overall theme or agenda of the PER.

6.07 The education sector (like other social sectors) has specific characteristics that affect the relationship between sector and macro expenditures and that can skew the impact of "sector-neutral" policies. PERs should pay explicit attention to these concerns, which include:

a) The different time frames for the attainment of macroeconomic and education sector goals. Reports should be explicit if and when these differences result in short-term conflicts about optimal resource allocation.

b) The often substantial part of education sector spending (governmental and nongovernmental) that is outside the purview and control of the Ministry of Education. A multisource budget should be developed that includes allocations to the sector from all government and nongovernment sources. Simple spreadsheet programs could be developed to help the reorganization and tracking of government budget items by economic and sectoral functions.

c) The overlap and lack of comprehensiveness of the capital and recurrent budgets. Capital spending on education that is outside the purview of the Ministry of Education should be included in the education expenditure framework. Recurrent costs are often hidden in the investment budget. While this procedure may be necessary in practice, analytically the two types of spending should be separated. An all-inclusive picture of the capital and recurrent budgets and the relationship between them should be developed.

d) The low ratio of capital to recurrent spending in the sector and the common imbalance between them. The common economic retrenchment policy of cutting recurrent costs in the short term can have a disastrous effect on the education and social sectors if they are not protected. Across-the-board cuts affect these sectors more severely than others, and such policies tend to exacerbate imbalances between (functional rather than budgetary) investment and recurrent allocations to the sector.

e) The low ratio of nonwage to wage expenditures within the sector's recurrent budget. Any policy that proposes economy-wide adjustments in public sector wages will likely affect the education sector more severely than less wage-intensive sectors. When these policies are being considered, particular attention must be paid ex ante to the wage structure and to the balance between teaching

and nonteaching wage costs. In particular, the ratio of nonsalary spending to total recurrent spending by level of education is a useful crosscountry indicator.

f) The large and capital-intensive foreign financing component in many low-income countries, which is often fragmented among many donors and projects. The long-run goal in many countries might be to bring the Bank's influence to bear on donor financing--to create a system for prioritizing and tracking needs and for balancing investment and recurrent support. In the short run, collating information on donor financing and its management would be a useful step.

6.08 The treatment of the education sector in PERs must be analyzed in the broader context of Bank operations, in particular in the context of adjustment programs, which form the background for the PERs in two-thirds of the countries reviewed. This report is the first step in a broader research agenda which includes:

a) An analysis of the effects of adjustment-related operations on the education sector.

b) A discussion of the treatment of the education sector in PERs in the context of the economic austerity and fiscal retrenchment that often form the background for policy reform.

c) The development of guidelines for an improved analysis of education sector cost and financing concerns in the macroeconomic expenditure context.

ANNEX I: QUESTIONNAIRE FOR EDUCATION SECTOR TREATMENT IN PUBLIC EXPENDITURE REVIEWS

I. INTRODUCTION

Country:_____
Review Name:_____
Number:_____
Date:_____

II. THE EDUCATION SECTOR IN THE MACROECONOMIC CONTEXT

A. Justification and operational context of review

1. What is the focus of the report?
   To analyze the impact of education sector concerns on the overall public budget?
   _____
   To analyze primarily the overall public budget with:
   education funding as a targeted area for budgetary concerns____
   education as a minor area of concern____
   not clear/not stated____

2. Is the review multisectoral or on the education sector only?_____
   If multisectoral, what sectors are reviewed in separate chapters or sections?
   _____
   How is education treated?
   an integral sector_____
   a minor sector_____
   barely mentioned_____
   not treated at all_____

B. Assessment of country situation

1. Country situation at time of review
   Country income level: LI LMI UMI UI
   Classified as oil exporter? Yes/No
   Classified as "highly indebted"? Yes/No

2. Total government expenditure as a percentage of GDP? (For comparative purposes, data can be taken from World Development Report.)
   _____ Year?_____ Rising trend?_____ Falling trend?_____

3. What is the overall macroeconomic situation of the country?
   Improving_____
   Stable_____
   Deteriorating___
   What is the time period for the analyis? Short term ____ Long term ____

4. Description of country economic situation:

5. What is the overall development strategy of the country?
   Major policy objectives? _____
   _____
   _____
   Major policy instruments? _____
   _____
   _____

6. What is the stated time frame of the sector review and policy proposals?
   ___medium term (3-5 yrs.) and/or
   ___long term (--> year 2000)

C. Treatment of macro-sector interfaces

1. Government spending on education as a percentage of all government spending?
   _____ Year?_____ Rising trend?_____ Falling trend?_____

2. Government spending on education as a share of GDP?_____ Year?_____
   Rising trend?_____ Falling trend?_____

3. Does the report discuss the effect on education of noneducation policies (for example, guaranteed employment for graduates, wage and civil service rigidities, immigration, emigration)?

4. What external forces (demographics/labor market needs) drive education policy?

5. Does the report mention specific dangers to the sustainability of education sector priorities? Yes/No Which?

D. Sector issues

1. Are there inefficiencies in the provision of education according to internal efficiency criteria?
   ___dropout rates by problem level

   ___repeater rates by problem level

   ___unit cost per pupil by problem level

   ___enrollment rates by problem level

2. Are there inefficiencies in the provision of education according to external efficiency criteria (for example, employment or unemployment data by educational level)?

3. Summary of sector issues at time of report:

E. Sector objectives and priorities

1. What are the sector objectives? Please specify educational levels.
___expansion/restructuring education systems

___quality improvements

___equity/access improvements

___improved internal efficiency

___improved external efficiency

2. Major policy instruments, if any? _____
_____
_____

3. Do the macro-priorities agree with the sector priorities? Yes/No
Objectives in accord? Yes/No
If not, how and why is there disagreement?

Instruments in accord? Yes/No
If not, how and why is there disagreement?

III. SECTOR COSTS AND FINANCING

1. Is government spending on education as a share of all government spending too high?___ too low?___ Or is the level of spending not a problem by itself?___

As determined by what information:
___falling trend of education spending/GDP or education spending/government spending?

___rising trend of education spending/GDP or education spending/government spending?

___regional or other intercountry comparisons?

2. Are there other budgets (that is, other government ministries) in addition to the educational budget that are mentioned as important sources of education financing? Yes/No Which?

   Are these included in the quantitative analysis? Yes/No

3. Are regional or local governments mentioned as significant sources of education financing? Yes/No Role evaluated quantitatively? Yes/No

4. Is the private sector mentioned as a significant provider of education? Yes/No
   Role evaluated quantitatively? Yes/No

5. Is the private sector mentioned as a significant source of education financing? Yes/No
   Role evaluated quantitatively? Yes/No

6. Is there intrasectoral misallocation of resources? Yes/No
   As determined by what information:
   ____Percentage of all central government education spending for primary education? too high?____ too low?____
   based upon what criteria?

   ____Percentage of all central government education spending for secondary education? too high?____ too low?____
   based upon what criteria?

   ____Percentage of all central government education spending for vocational education? too high?____ too low?____
   based upon what criteria?

   ____Percentage of all central government education spending for higher education? too high?____ too low?____
   based upon what criteria?

7. Are there inefficiencies in the provision of education according to government budgetary criteria?

   ____capital vs. recurrent costs_____
   ____insufficient funds for maintenance_____
   ____insufficient funds for materials/supplies_____
   ____within recurrent costs, wage vs. nonwage costs_____
   ____teaching vs. nonteaching wage costs_____
   ____ratio of teachers' salaries to per capita GNP_____,
   or to average civil service income_____

8. Specific budget misallocations by educational level:
   (according to a[illegible] or other criteria)

IV. SECTOR FINANCING STRATEGIES

1. Adjustment to public expenditure priorities
   Maintain level of funding to education sector?___
   Increase public spending on education?___
   Reduce public spending on education?___
   Unclear/Not stated___

2. How is this adjustment to be effected?
   Redistribute budget allocations among sectors? How?

   Reduce educational unit costs? How?

   Increase recourse to other sources of financing?
   ___foreign aid?
   ___local/regional government?
   ___NGOs/religious organizations?
   ___user fees/cost recovery?
   ___other private sector contribution to education financing?

3. Are the financing conclusions realistic in light of the overall macroeconomic situation? Yes/No If not, how and why not?

4. Do the financing conclusions agree with the educational sector objectives? Yes/No If not, how and why not?

V. METHODOLOGY

A. Sector coverage

1. Did an education sector specialist participate in the mission/report preparation? Yes/No

2. What is known about prior public expenditures?
   There have been several/many years of Bank experience and reliable data___
   There are underlying country/expenditure/sector studies that are:
   included in the review_____
   referred to in the review_____
   implied but not mentioned_____
   The Bank has little experience in the country_____
   Not clear/not stated___

3. Review of education sector
   a. Analysis covers recurrent budget?___ capital budget?___ both?___
      Only central government spending on education?___
      Only Ministry of Education spending?___
      Central and local government spending on education?___
      Non-central government spending on education? ___
            private schools?___
            private contributions?___
      External spending on education?___

   b. Reviews all levels of education___
      Only covers education generally___
      Focuses on Primary___
            Secondary___
            Higher___
            Other___
      Is any attention paid to vocational education and training? Yes/No
            At which levels? _____

4. Data
   a. Are the data government-generated? Yes/No
         From government planning documents?___
         From actual expenditure/investment documents?___
      Bank-generated? Yes/No

   b. Are the data accurate and reliable? Yes/No
         Not clear/not stated___

   c. Does the report state which data are missing? Yes/No Which?

   d. Does the report state which data are presumed inaccurate/unreliable? For example, ghost workers, inconsistencies between ministry statistics.
      Yes/No Which?

B. Sector analysis

1. Are comparisons made with other countries? Yes/No
   How are the comparator countries selected (neighboring, similar per capita GNP, similar economic structure)?

   For which data?

2. Financing Model:
   a. Was an education sector financing model used? Yes/No
      For which level(s) of education?

b. What is the objective of the model?
   Minimize expenditure for a given set of educational objectives?_____
   Maximize objective for a given resource availability (budget constraint)?_____
   To quantify a financing gap?____

c. How are trade-offs among multiple objectives determined?
   Cost-effectiveness____
   Clear government policy priorities____
   Intuitive/subjective assessment by Bank____
   Not clear/not stated____

d. Were alternative scenarios generated? Yes/No Specify:

e. Are efficiency improvements assumed in the model simulations? Yes/No
   For which educational level(s)_____.
   Specify:

C. Institutional issues

1. Is the sector strategy: Government-generated?____
   Bank-generated?____
   Genesis unclear/not stated?____

2. Is there any discussion of the political/institutional feasibility of proposed changes? Yes/No

3. Are the equity implications of macroeconomic and sector policies clearly stated and explored? Yes/No

4. Is the social impact of the proposed policy changes analyzed? Yes/No Specify:

5. Additional remarks:

ANNEX II: LIST OF REPORTS REVIEWED

Africa

Botswana	6031-BT: Public Expenditure and Development in Botswana (June 3, 1986)
Burkina Faso	Coûts, Financement et Politique de l'Education au Burkina Faso (May 7, 1987)
Cameroon	7451-CM: Adapting Public Finances to a Changing Macroeconomic Environment (October 6, 1988)
Central African Republic	Public Expenditure Review (October 23, 1989)
Côte d'Ivoire	6051-IVC: The Côte d'Ivoire in Transition: From Structural Adjustment to Self-Sustained Growth (March 9, 1987)
Ghana	5824-GH: Priorities for Public Expenditures, 1986-1988 (August 13, 1985)
Guinea	Possibilités Budgetaires et Besoins Financiers du Secteur de l'Education en République du Guinée, J. Orivel et J. Perrot (November 1988)
Kenya	7508-KE: Public Expenditure Issues (April 14, 1989)
Lesotho	7243-LSO: Public Expenditure Priorities in Lesotho (September 28, 1988)
Madagascar	7803-MAG: Public Expenditure, Adjustment and Growth (December 20, 1989)
Malawi	7281-MAI: Public Expenditure Review (February 10, 1989)
Mali	Coûts, Financement et Efficacité des Enseignements Superieur et Secondaire au Mali (November 1988)
Mozambique	7615-MOZ: Public Expenditure Review (September 5, 1989)
Niger	Coûts, Financement et Politique de l'Education au Niger (July 13, 1988)
Nigeria	Education Sector Expenditure Review (July 1985)

Rwanda	7717-RW: Public Expenditure Program: An Instrument of Economic Strategy (October 19, 1989)
Senegal	6450-SE: A Review of the Three-Year Public Investment Program, 1987/88-1989/90 (February 26, 1987)
Sierra Leone	5513-SL: Review of the Public Expenditure Program (September 13, 1985)
Tanzania	7559-TA: Public Expenditure Review (May 22, 1989)
Zambia	6438-ZA: Public Expenditure Review (October 6, 1987)
Zimbabwe	Public Expenditure Review (February 1986)

Asia

Bangladesh	7545-BD: Public Expenditure Review: A Framework for Public Resource Management in the Fourth Five Year Plan Period, FY91-95 (March 13, 1989)
Philippines	7473-PH: Education Sector Study (December 1988)

Europe, Middle East and North Africa

Jordan	5697-JO: Efficiency and Equity of Government Revenues and Social Expenditures (June 1986)
Morocco	4156-MOR: Priorities for Public Sector Investment 1981-1985 (June 15, 1983)
Pakistan	5962-PAK: Economic and Social Development Prospects (February 18, 1986)
Tunisia	5622-TUN: Financing of Education: Past Trends and Future Developments (April 22, 1985)
Turkey	6249-TU: Education and Training Sector Survey (September 1986)

Latin America, Caribbean

Bolivia	7746-BO: Public Sector Expenditure Review with a Special Emphasis on the Social Sectors (September 15, 1989)

Colombia	7891-CO: Public Sector Expenditure Review (August 1, 1989)
Costa Rica	7877-CR: Public Sector Expenditure Review (September 21, 1989)
Guatemala	7478-GU: Public Sector Expenditure Review (May 23, 1989)
Haiti	6113-HA: Public Expenditure Review (September 29, 1986)
Honduras	7861-HO: Public Sector Expenditure Review (December 6, 1989)
Mexico	6371-ME: Public Sector Investment Review--A Joint Report (August 5, 1986)
Peru	6528-PE: Public Expenditure Review (January 29, 1987)

ANNEX III: COUNTRY TYPOLOGY

This annex documents the country typology adopted for the comparative analysis of PER policy conclusions related to education cost and financing issues. The typology essentially classifies countries according to the basic policy-related determinants of the supply of public resources to the education sector. At this stage, it is limited to the sample countries covered in the present PER study. It is also static, as it relies on country data for one single benchmark year. Ultimately, its usefulness should benefit from a more comprehensive coverage, as well as from the incorporation of patterns of recent changes in key variables.

I. The Methodological Framework

From a resource availability perspective, the absolute level of government spending on education (SR) can be seen as the product of three basic factors: the *level of GNP* (Y), that is, the total supply of national resources; the efficiency of *public resource mobilization* (PRM), as reflected by the ratio of government revenue to GNP; and *sector resource allocation* (SRA), that is, the part of government expenditure absorbed in the education sector. In formula:

$$SR = Y * PRM * SRA.$$

For crosscountry comparison, the relative level of sector resources (SRM) is being defined in terms of GNP, and therefore:

$$SRM = PRM * SRA.$$

Sector resource availability thus depends on two policy-related parameters: resource mobilization and resource allocation. In the PER context, the former concerns the country team's macroeconomist, or public finance expert, while the latter is the major focus of interaction between the macroeconomist and the sector specialist. It thus seems relevant, in the context of this review, to classify countries according to their respective PRM and SRA levels.

However, whether the supply of public resources for education is high or low by international standards bears little relation to the sector's actual financing needs. Government spending on education may represent a substantial proportion of GNP, perhaps at the limit of sustainable resource mobilization and sector allocation, and still not meet the sector's overall financing requirement. Short of a comprehensive accounting framework of sector financing needs, an international comparison of public spending on education therefore still ought to incorporate some comparative notion of sectoral output performance. To this end, countries have been further distinguished according to their primary enrollment rate (PE), which was selected in view of the high priority of achieving universal primary education among sector objectives, as well as the large amount of education financing absorbed by this subsector (around 40 percent on average in developing countries). However, since PE, in addition to sector resource mobilization parameters, also

reflects countries' overall level of development, it would seem justified to eliminate the influence of this structural long-term relationship in order to obtain a universally applicable comparative output criterion. This was done by correcting PE for the "estimated" contribution of per capita GNP (see table 1).

II. The Country Typology

The PER reports selected for review cover a sample of 36 countries, 19 of which are in the low-income range. This sample was subdivided with respect to each of the three typology parameters into "high" and "low" country groupings, depending on whether the parameter value for each country lies above or below the median value of the sample. "High" and "low" are thus relative terms that do not indicate value judgments. All country data are from the Bank's 1989 World Development Report, complemented from other sources where needed. Parameter values in the sample are shown in table 1.

The first step in the development of the typology is to combine the PRM and SRA criteria into a sector financing matrix, which characterizes each country according to its "high" or "low" status with respect to the policy determinants of overall sector resource availability. This matrix, shown in table 2, provides a rough comparative framework of basic priorities with regard to sector financing issues. The actual position of countries on the PRM and SRA scales is illustrated in figure 1.

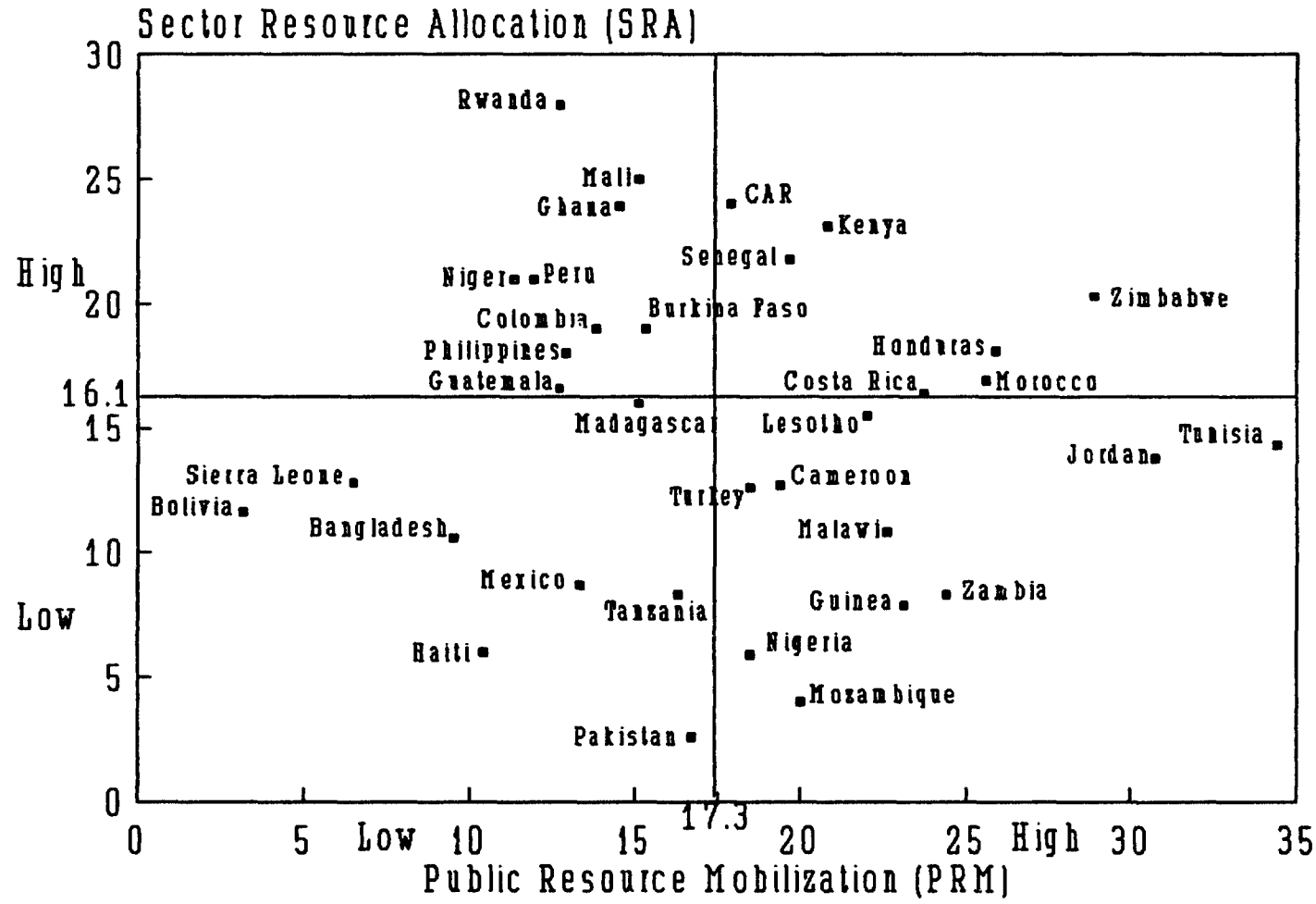
Table 3 completes the country typology. It shows the net outcome of the interaction of PRM and SRA, that is, the overall level of sector resource mobilization relative to GNP (SRM), referenced against the selected educational output criterion (PE). The actual position of countries on the SRM and PE scales is illustrated in figure 2. In addition, table 2 indicates for each country the critical parameter(s)--PRM, SRA, or both --determining the high or low status of SRM.

Of the 36 countries in the review, 20 have a comparatively low level of sector resource mobilization, including 12 of the 19 low-income countries.[1/] On the educational output-side, however, 19 countries have a comparatively high primary enrollment rate, including 9 low-income countries.

Surprisingly, the largest category emerging from the typology in table 3 consists of 13 countries with low sector resource mobilization (SRM) and high sector output (PE). This may be interpreted in several ways, depending on country-specific circumstances: a relatively high proportion of SRM is allocated to primary education; central government spending on education in general, or on primary education in particular, represents only a small proportion of total spending because local government or private contributions are high; SRM has been declining in recent years, but this has so far affected quality rather than PE.

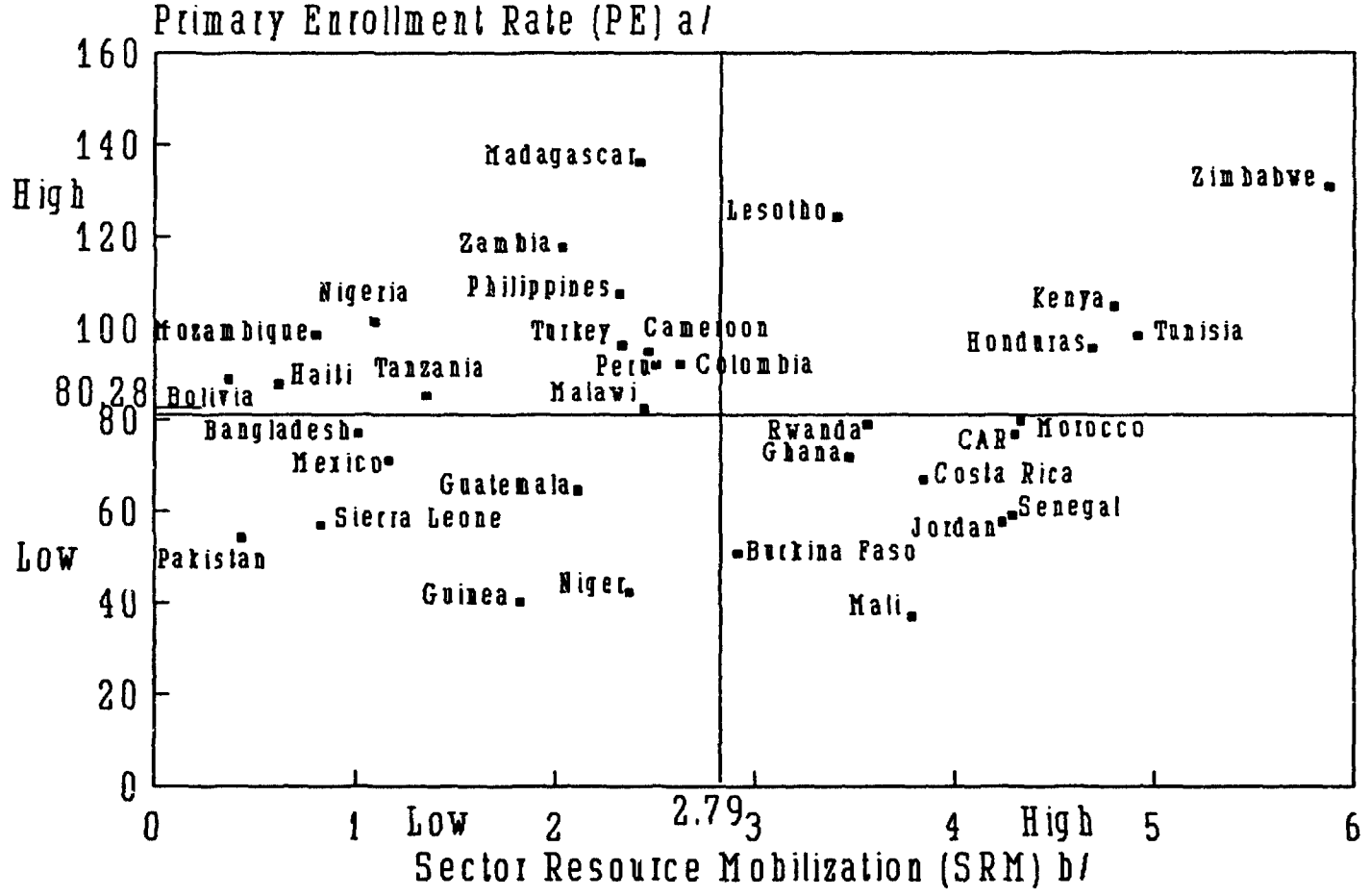
[1/]The median SRM (2.67) represents the product of the median PRM and median SRA, rather than the median of the product of the two medians.

Figure 1



(excluding Botswana and Cote d'Ivoire)

Figure 2



(excluding Botswana and Cote d'Ivoire)
a/ PE = PE - .36 * (GNP - .63)
b/ SRM = SRA * PRM

Table 1: Parameter Values by Country (in percent)

COUNTRY	Public Resource Mobilization (PRM)	Sector Resource Allocation (SRA)	Sector Resource Mobilization (SRM)	Primary Enrollment Rate (PE*)[a/]
Bangladesh	9.5	10.6	1.01	76.85
Bolivia	3.2	11.6	0.37	88.79
Botswana	75.2	18.4	13.84	89.94
Burkina Faso	15.3	19.0	2.91	50.77
Cameroon	19.4	12.7	2.46	94.81
Central African Rep.	17.9	24.0	4.30	76.76
Colombia	13.8	19.0	2.62	92.13
Costa Rica	23.7	16.2	3.84	66.87
Côte d'Ivoire	28.2	35.9	10.12	74.06
Ghana	14.5	23.9	3.47	71.60
Guatemala	12.7	16.6	2.11	64.53
Guinea	23.1	7.9	1.82	40.11
Haiti	10.4	6.0	0.62	87.68
Honduras	25.9	18.1	4.69	95.55
Jordan	30.7	13.8	4.24	57.66
Kenya	20.8	23.1	4.80	104.74
Lesotho	22.0	15.5	3.41	124
Madagascar	15.1	16.0	2.42	136. .
Malawi	22.6	10.8	2.44	80.85
Mali	15.1	25.0	3.78	37.06
Mexico	13.3	8.7	1.16	70.98
Morocco	25.6	16.9	4.33	79.72
Mozambique	20.0	4.0	0.80	98.49
Niger	11.3	21.0	2.37	42.26
Nigeria	18.5	5.9	1.09	101.32
Pakistan	16.7	2.6	0.43	54.04
Peru	11.9	21.0	2.50	91.89
Philippines	12.9	18.0	2.32	107.43
Rwanda	12.7	28.0	3.56	78.83
Senegal	19.7	21.8	4.29	58.94
Sierra Leone	6.5	12.8	0.83	56.83
Tanzania	16.3	8.3	1.35	85.13
Tunisia	34.4	14.3	4.92	98.28
Turkey	18.5	12.6	2.33	96.21
Zambia	24.4	8.3	2.03	117.62
Zimbabwe	28.9	20.3	5.87	130.79
Median[b/]	17.3	16.1	2.79	80.29

[a/]Cross-sectional regression of PE on per capita GNP (in $000) yields the following result:

$$PE = 0.36 * GNP + 0.59 \qquad R^2 = 0.32$$
$$(0.09)$$

This estimate was used to normalize each country's PE to the sample's median per capita GNP level ($630); hence:

$$PE^* = PE - 0.36 * (GNP - 0.63)$$

[b/]Excluding Botswana (extremely high PRM) and Nigeria (very low SRA, reflecting only federal budget).

Source: World Development Report 1989.

Table 2: Education Sector Resource Availability

	HIGH SRA	LOW SRA
HIGH PRM	Botswana	Cameroon
	CAR	**Guinea**
	Côte d'Ivoire	Jordan
	Costa Rica	**Lesotho**
	Honduras	**Malawi**
	Kenya	**Mozambique**
	Morocco	**Nigeria**[a/]
	Senegal	Tunisia
	Zimbabwe	Turkey
		Zambia
LOW PRM	**Burkina Faso**	**Bangladesh**
	Colombia	Bolivia
	Ghana	**Haiti**
	Guatemala	**Madagascar**
	Mali	Mexico
	Niger	**Pakistan**
	Peru	**Sierra Leone**
	Philippines	**Tanzania**
	Rwanda	

Note: Low-income countries are in bold.

[a/]Federal spending on education is only about one-third of total sector spending. Nigeria would be a high SRA country if state expenditures were taken into account.

Table 3: Sector Resource Mobilization and Educational Output
(Country Typology)

		HIGH SRM		LOW SRM	
			Critical Parameter[a/]		Critical Parameter[a/]
HIGH PE	Tunisia	PRM		Philippines	PRM
	Lesotho	PRM		Colombia	PRM
	Botswana	PRM/SRA		Peru	PRM
	Kenya	PRM/SRA		Turkey	SRA
	Zimbabwe	PRM/SRA		Cameroon	SRA
	Honduras	PRM/SRA		**Malawi**	SRA
	Mozambique	SRA		**Nigeria**	SRA
				Zambia	SRA
				Madagascar	PRM/SRA
				Tanzania	PRM/SRA
				Bolivia	PRM/SRA
				Haiti	PRM/SRA
LOW PE	Jordan	PRM		**Niger**	PRM
	Burkina Faso	SRA		Guatemala	PRM
	Ghana	SRA		**Guinea**	SRA
	Mali	SRA		**Pakistan**	PRM/SRA
	Rwanda	SRA		**Sierra L.**	PRM/SRA
	Morocco	PRM/SRA		**Bangladesh**	PRM/SRA
	CAR	PRM/SRA		Mexico	PRM/SRA
	Côte d'Iv.	PRM/SRA			
	Senegal	PRM/SRA			
	Costa Rica	PRM/SRA			

Note: Low-income countries are in bold.
[a/]Policy parameter(s)--PRM, SRA, or both--responsible for SRM being high or low.

The next largest group consists of 10 countries that combine a high SRM with a low PE. In this group, the high spending on education (whether because of high SRA, high PRM, or both) is not matched by a high sector output. A major issue for further analysis is therefore one of efficiency in the use and intrasectoral allocation of sector resources. The high SRM status of the low-income countries in this group is largely due to a comparatively high SRA, which more than offsets a low PRM. This raises the issue of the sustainability of the government's strong commitment to education in the face of low

initial levels of educational output, low absolute levels of mobilizable resources, and the low efficiency of, or potential for, public resource mobilization.

The two remaining groups of countries are straightforward, in the sense that high or low levels of sector resource mobilization correspond to high or low levels of educational output. In the former case, sector savings might be possible. In the latter case, it would seem imperative that SRA increase where it appears a critical factor in the low comparative level of sector resource availability; this applies to four of the five low-income countries in the group.

A closer look at table 3 suggests that SRA rather than PRM determines the position of low-income countries on the SRM scale. PRM appears to play a more dominant role in the determination of sector resource availability in middle-income countries. This phenomenon has an evident procedural implication in the PER context, namely: adequate public resource allocation to education ought to be given stronger emphasis in poorer countries, where the overall resource base is weaker, than in richer countries.

III. Interpretation of the Country Typology

This section reviews the policy diagnosis and strategic implications of the sector financing situations arising from the interplay of public resource mobilization and sector resource allocation. The same series of sector financing situations is reviewed twice: once in conjunction with a high level of educational output (subsection A), and again in conjunction with a low level of educational output (subsection B).

A. HIGH PE

A.1. LOW PRM/LOW SRA: Inadequate supply of public resources to the sector, reflecting low public resource mobilization and a weak commitment by the government to education. There may thus be a equity issue at the primary level, since high PE, under public resource constraint, probably means substantial parental and community contributions, or a two-tier system (low quality/low cost for the poor, and vice-versa). SRA needs to be increased, for support of equity objectives and quality improvements at the primary level, in particular where PE includes high repetition rates. Additional public financing should also benefit postprimary levels, depending on the specific cost-effectiveness situation. Countries: Bolivia, Haiti, Madagascar, Tanzania.

A.2. LOW PRM/HIGH SRA:

(a) LOW SRM: Inadequate supply of public resources to the sector, in spite of strong commitment to education by the government. The sustainability of SRA is at issue, depending on the prospects for gradually raising PRM. Mobilization of nongovernment resources may be required for quality improvements and possibly for improving access to postprimary levels. Countries: Colombia, Peru, Philippines.

(b) HIGH SRM: Strong commitment by the government to education guarantees in principle an adequate supply of public resources to the sector, in spite of low public resource mobilization. Sector efficiency gains might be used to provide temporary relief to the PRM constraint, particularly in highly indebted countries. Countries: none in the sample.

A.3. HIGH PRM/LOW SRA:

(a) LOW SRM: Inadequate supply of public resources to the sector, reflecting weak commitment to education. The high PRM level would justify raising SRA, particularly in low-income countries. Postprimary levels likely command some priority in the allocation of incremental sector resources. Quality and equity may also be at issue at the primary level. Countries: Cameroon, Malawi, Mozambique, Nigeria (see, however, note a in table 2), Zambia, Turkey.

(b) HIGH SRM: In principle, adequate supply of public resources to the sector, thanks to high public resource mobilization. However, unfulfilled sector objectives and outstanding quality and equity issues might require a higher level of government commitment to education, particularly where PRM prospects are uncertain. Countries: Lesotho, Tunisia.

A.4. HIGH PRM/HIGH SRA: Adequate supply of public resources to the sector. There is in principle financial room for addressing sector-wide quality issues and equity concerns. Countries: Botswana, Honduras, Kenya, Zimbabwe.

B. LOW PE

B.1. LOW PRM/LOW SRA: Overall sector underfinancing from public and private sources. An increase in SRA is required; this may not be enough, however, to ensure an adequate supply of sector resources, given the low level of public resource mobilization. SRA may be particularly difficult to increase in highly indebted countries. The combination of sector underfinancing and the low primary enrollment rate generally suggests that efficiency at all levels should be increased and more equitable intrasectoral allocation of public resources should be promoted. Temporary external support to the recurrent budget may be required in low-income countries. Countries: Bangladesh, Mexico, Pakistan, Sierra Leone.

B.2. LOW PRM/HIGH SRA:

(a) LOW SRM: Overall sector underfinancing in spite of government's strong commitment to education. As in A.2 (a), sustainability of

SRA is at issue. Low PE points toward the need to focus on efficiency in the use and allocation of sector resources at all levels. Direct efficiency gains and cost recovery measures at higher levels could free resources for quality improvements and expansion at the primary level. Temporary external support to recurrent budget may be required in low-income countries. Countries: Guatemala, Niger.

(b) HIGH SRM: Strong but ineffective government commitment to education. The situation appears characteristic of low-income countries: in view of the limited resource base (from an absolute income level and mobilization efficiency perspective), as well as the low initial educational output situation, even a relatively high apparent sector resource mobilization remains insufficient to meet actual sector needs. The sustainability of the government's commitment is therefore an issue. For the rest, sector strategic priorities are similar to B.2 (a). Countries: Burkina Faso, Ghana, Mali, Rwanda.

B.3. HIGH PRM/LOW SRA:

(a) LOW SRM: Given low PE, high PRM makes this a case for increasing SRA. Incremental public financing is to be used for primary education, in part to relieve the financial burden on parents and communities. Temporary external support to recurrent budget may be required. Countries: Guinea.

(b) HIGH SRM: High public resource mobilization generates in principle an adequate supply of resources despite the government's weak commitment to education. The low PE, however, points toward major inefficiencies in the use and allocation of sector resources. Comprehensive sector reforms are thus required, possibly combined with some increase in SRA. Countries: Jordan.

B.4 HIGH PRM/HIGH SRA: Strong but ineffective commitment by the government to education, under relatively adequate public resource mobilization conditions. This is the archetypal case for sector adjustment to improve efficiency in the use and allocation of budgetary resources, primarily in favor of primary education. For the highly indebted countries, the high SRA may not be sustainable. A sector adjustment loan may be an appropriate vehicle for required sector reforms, providing temporary budget relief until efficiency gains are realized. Countries: Central African Republic, Costa Rica, Côte d'Ivoire, Morocco, Senegal.

ANNEX IV: COMPARATIVE ANALYSIS OF SECTOR FINANCING STRATEGIES: SUMMARY OF OUTCOMES

(Percentage of countries in each category)

	Low SRM/ Low PE (7)	Low SRM/ High PE (13)	High SRM/ Low PE (10)	High SRM/ High PE (6)	Low SRM (20)	High SRM (16)	Low PE (17)	High PE (19)	Low Income (19)	Middle Income (17)	Total (36)
Economic situation											
Improving	71	31	10	0	45	6	35	21	37	18	28
Stable	14	31	30	67	25	44	24	42	21	47	33
Deteriorating	0	31	50	33	20	44	29	32	26	35	31
Sector issues											
Public spending											
Low	71	62	20	17	65	19	41	47	53	35	44
High	0	8	40	50	5	44	24	21	16	29	22
Intrasectoral allocation											
Low primary	71	23	70	33	40	56	71	26	53	41	47
Low postprimary	29	15	20	0	20	13	24	11	11	24	17
High postprimary	71	62	90	67	65	81	82	63	74	71	72
Inefficiencies											
Budget	57	92	90	67	80	81	76	84	89	71	81
Internal	71	100	90	67	90	81	82	89	89	82	86
External	29	77	60	67	60	63	47	74	63	59	61
Sector objectives											
Access											
Primary	86	62	80	67	70	75	82	63	84	59	72
Postprimary	43	46	30	50	45	38	35	47	42	41	42
Quality improvements											
Primary	71	92	90	67	85	81	82	84	95	71	83
Postprimary	43	54	40	50	50	44	41	53	42	53	47
Equity											
Primary	57	54	50	50	55	50	53	53	42	65	53
Postprimary	14	23	10	0	20	6	12	16	16	12	14

	Low SRM/ Low PE (7)	Low SRM/ High PE (13)	High SRM/ Low PE (10)	High SRM/ High PE (6)	Low SRM (20)	High SRM (16)	Low PE (17)	High PE (19)	Low Income (19)	Middle Income (17)	Total (36)
Sector objectives (cont.)											
Internal efficiency											
Primary	43	54	40	67	50	50	41	58	47	53	50
Postprimary	43	46	30	33	45	31	35	42	42	35	39
External efficiency											
Primary	14	0	40	33	5	38	29	11	21	18	19
Postprimary	14	31	50	17	25	38	35	26	32	29	31
Sector financing											
Redistribute	86	77	100	33	80	75	94	63	95	59	78
Cost/efficiency	86	92	30	67	90	75	82	84	89	76	83
New sources	71	77	70	17	75	50	71	58	68	59	64
Cost recovery	71	77	100	50	75	81	88	68	79	76	78
Public spending											
Increase	86	69	20	17	75	19	47	53	53	47	50
Maintain	14	31	80	83	25	81	53	47	47	53	50

SRM: Sector resource mobilization

PE: Primary enrollment rate

Note: Numbers in parentheses denote total number of countries in each category, one report per country.

ANNEX V: SECTORS CONSIDERED IN REPORTS

	Education	Health	Human Resources	Water	Housing	Agriculture	Manufacturing	Mining
Bangladesh *	X	X		X		X		
Bolivia *	X	X						
Botswana			X			X	X	
Burkina Faso	X							
Cameroon	X	X				X		
CAR			X			X		
Colombia	X	X						
Costa Rica	X	X		X		X		
Côte d'Ivoire *	X	X				X	X	
Ghana	X	X		X	X	X	X	X
Guatemala	X	X		X	X	X		
Guinea	X							
Haiti *	X	X		X		X		
Honduras	X	X		X	X	X		
Jordan	X	X		X	X			
Kenya	X	X				X		
Lesotho	X	X	X	X	X	X	X	
Madagascar		X				X		
Malawi *	X	X		X	X	X		
Mali	X							
Mexico *	X	X		X	X	X		
Morocco	X	X			X	X	X	X
Mozambique	X	X				X		
Niger	X							
Nigeria	X							
Pakistan *	X	X						
Peru *	X	X		X		X	X	X
Philippines	X							
Rwanda	X	X		X		X	X	X
Senegal	X	X				X		
Sierra Leone *	X	X			X	X	X	X
Tanzania *	X	X		X	X	X		X
Tunisia	X							
Turkey	X							
Zambia *	X	X				X		X
Zimbabwe *	X							

	Industry	Energy/ Power	Transportation	Communications	Urban Development	Infrastructure/ Works
Bangladesh *	X	X	X	X		X
Bolivia *						
Botswana						X
Burkina Faso						
Cameroon			X		X	
CAR						X
Colombia		X				
Costa Rica		X	X	X		
Côte d'Ivoire *						
Ghana			X	X		X
Guatemala		X	X	X	X	
Guinea						
Haiti *			X	X	X	
Honduras		X	X	X		
Jordan		X				
Kenya		X	X			
Lesotho	X	X	X		X	X
Madagascar			X			
Malawi *		X	X			X
Mali						
Mexico *	X	X	X	X		
Morocco		X	X	X		
Mozambique			X			
Niger						
Nigeria						
Pakistan *					X	
Peru *			X			
Philippines						
Rwanda		X	X		X	
Senegal	X	X	X	X	X	
Sierra Leone *		X	X	X		
Tanzania *	X	X	X	X		X
Tunisia						
Turkey						
Zambia *	X	X	X	X		
Zimbabwe *						

* Other sectors included in reports:

Bangladesh:	Natural resources
Bolivia:	Social Security
Cote d'Ivoire:	Population, Finance
Haiti:	Electric Power, Public Industrial Enterprises
Malawi:	Forestry
Mexico:	Marketing & Storage
Pakistan:	Population
Peru:	Electric Power, Petroleum
Sierra Leone:	Tourism
Tanzania:	Natural Resources
Zambia:	Roads, Development Administration
Zimbabwe:	Defense, Public Enterprises

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